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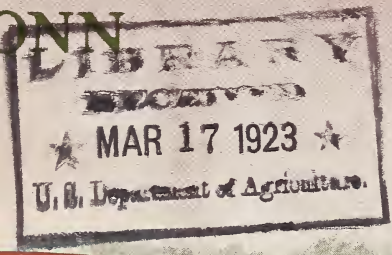
OLDS & WHIPPLE

INCORPORATED

Seeds and Fertilizers

HARTFORD, CONN.

1923



ORDER SHEETS FOR FARM AND GARDEN SEEDS

FROM

OLDS & WHIPPLE, Inc.

164-6-8 STATE STREET,

HARTFORD, CONN.

Name

P. O. Address

Ship by

Ship to

Date.....192

Quantity.

NAME OF ARTICLES WANTED.

Price.

Company

Order to

order of

Pay to the order of

Amount

Payable to order of

ORDER & WHOLESALE INC.

MADE

RECEIVED FROM

AMOUNT RECEIVED IN FULL

Date

Page

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ORDER SHEETS FOR EVIDENCE AND CASHIER SEEDS

FOREWORD

BEGINNING our 46th year in business at 164-168 State Street, we extend to our customers and friends best wishes for a Happy and Prosperous year.

During the past year the Connecticut Co-operative Tobacco Association has become a fact, and already some of the benefits to be derived from this organization are becoming apparent. The tobacco farmer should feel much encouraged with this organization behind him, and every prospect of a better market for his product.

The greatest asset of our business is the confidence reposed in us by our friends and customers, and our greatest care is to so conduct our business that we may merit a continuance of this confidence. Our motto is "do to others as you would that others do to you."

OLDS & WHIPPLE, INC.

SEED, FERTILIZER

AND

AGRICULTURAL IMPLEMENT CATALOG

For 1923



FERTILIZER FACTORY:

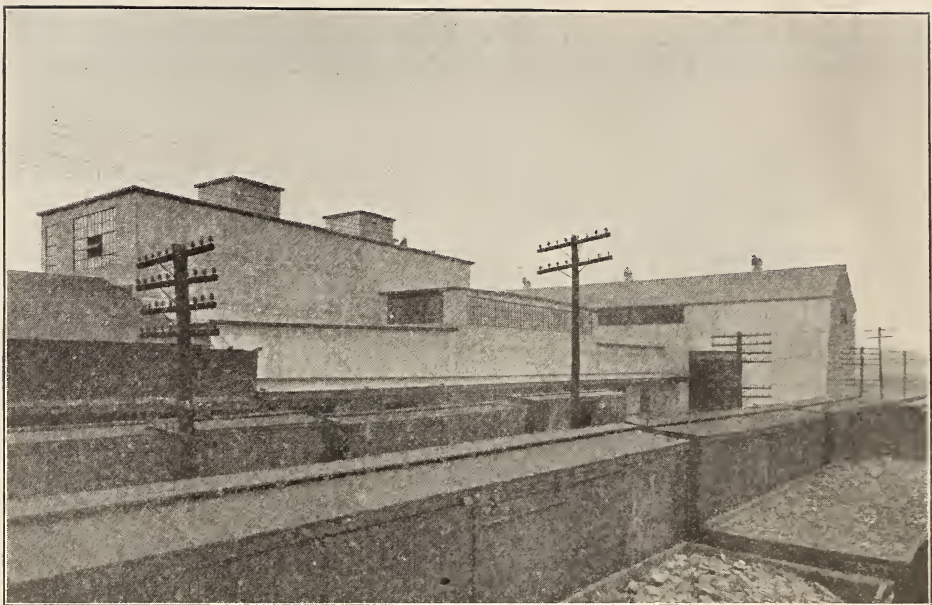
Tolland Street, East Hartford, Conn.

MAIN OFFICE AND IMPLEMENT WAREHOUSE:

164-6-8 State St., Hartford, Conn.

OLDS & WHIPPLE, Inc.

NOTE: Stop at State Street Office and secure a written order on Warehouse for fertilizers.



A view of our new Fertilizer Mixing Plant as seen from the railroad.



This photograph shows an interior view of one of our storage rooms and was taken before the buildings were entirely finished.

Olds & Whipple, Inc.

List of Fertilizers and Raw Materials for 1923

O. & W.'s Special Fertilizers

O. & W. Complete Tobacco Fertilizer	O. & W. High Grade Potato Fertilizer
O. & W. Blue Label Tobacco Fertilizer	O. & W. Complete Seeding Down Grass Fertilizer
O. & W. High Grade Tobacco Starter	O. & W. Top Dressing for Grass
O. & W. Complete Corn, Onion and Potato Fertilizer	O. & W. Bone and Potash Compound
O. & W. Special Corn, Onion and Potato Fertilizer	O. & W. High Grade Starter and Potash Compound
	O. & W. Lawn Fertilizer

FERTILIZING MATERIALS

Swift Sure Phosphate.	Acid Phosphate.
Swift Sure Bone Meal.	Sulphate of Ammonia.
High Grade C. S. Meal guaranteed analysis.	Nitrate of Soda.
Castor Pomace guaranteed analysis.	Sheep Manure.
Tobacco stems in bales.	Dry Ground Fish.
Lime for Agricultural use.	Tankage.
Fine ground Nova Scotia Plaster.	Steamed Bone.
High Grade Muriate Potash.	Precipitated Bone Phosphate.
High Grade Sulphate Potash Kainit.	Poultry Manure.

A WORD ABOUT FERTILIZERS.

The farmer cannot justly complain about the price of fertilizers for 1923. In spite of the fact that most commodities have an upward trend fertilizers on the whole are below last year's prices. Few lines of business are conducted on so small a margin of profit and we know of none that extends as long credits.

It behooves every man who uses fertilizers to anticipate his requirements and order immediately, if he has not already done so. Railroad transportation has almost broken down. It takes weeks to get cars to destination where it should take only a few days, and we are bound to see a grand rush for fertilizer at planting time, and there will be delays and disappointments for which the fertilizer companies cannot be blamed.

We repeat what was said in our 1922 catalogue, "that it is a mistake to attempt to grow crops on Cotton-seed Meal alone as Meal lacks two important elements of plant food, namely, phosphoric acid and potash." Particularly, as we have been supplying potash in reduced quantities during the past five or six years. To supply these two elements of plant food to those farmers who expect to use C. S. Meal we are again offering our Bone & Potash Compound and our High Grade Starter & Potash Compound to be used at the rate of 1000 lbs. per acre with C. S. Meal or Castor Pomace and we strongly recommend the use of same.

Our Special Mixtures for all Crops

The following pages give you a list of the special fertilizers which we manufacture at our own factory.

These special mixtures are from tested formulae, proved out by practical growing tests. They are finely ground, and mechanically, in such condition, as to render them readily available to the growing crops.

Their use will repay you. They produce the kind of crops that pay. Used and endorsed by best growers.

O. & W. Complete Tobacco Fertilizer

For 1923 this famous formula will be made with the same analysis as before the war. For many years hundreds of acres up and down the Connecticut Valley have been fertilized with our Complete and produced the finest crops of tobacco. It is endorsed by the buyers of the leaf which is the strongest kind of recommendation. No tobacco fertilizer can be made better.

GUARANTEED ANALYSIS { 5 to 6% Ammonia.
3 to 4% Available Phosphoric Acid.
5 to 6% Actual Potash.

Our Blue Label Brand Tobacco Fertilizer

This fertilizer carries 1000 lbs. of C. S. Meal in every ton, put up for the grower who desires a large amount of meal under his tobacco crop. The phosphoric acid and potash are derived from the same high grade sources as our Complete Tobacco Fertilizer.

GUARANTEED ANALYSIS { 6 to 7% Ammonia
3 to 4% Available Phosphoric Acid
5 to 6% Actual Potash

O. & W. High-Grade Tobacco Starter

This high grade starter has been used with conspicuous success by some of our best growers in the valley. We recommend that it be applied after the first time hoeing. At that critical stage of growth an abundant supply of quickly available ammonia enables the plant to get a vigorous start, overcome and grow away from any unfavorable condition that may exist.

Experience has taught us that the crop that grows quickly, vigorously and does not stop until it reaches maturity produces the best goods.

Apply about 500 lbs. per acre.

Guaranteed Analysis { 10 to 11% Ammonia.
3 to 4% Available Phosphoric Acid.

O. & W. Bone and Potash Compound

This formula was extensively used with conspicuous success in 1922. It is recommended for use with Cottonseed Meal or Castor Pomace for the tobacco crop. It contains the elements of plant food which the above materials lack, namely, available phosphoric acid and potash and when used with meal makes a complete fertilizer. We recommend 1000 lbs. per acre.

GUARANTEED ANALYSIS { 4 to 5% Available Phosphoric Acid.
15 to 16% Actual Potash.

O. & W. High Grade Starter and Potash Compound

This formula is the same as the above with the addition of 5 per cent quickly soluble ammonia and should be used with Cottonseed Meal or Castor Pomace on such tobacco lands as need a starter. The ammonia of C. S. Meal and Pomace is slow acting and on some lands a more quickly soluble form of ammoniate is needed to start the crop. It should be used as our Bone & Potash Compound, 1000 lbs. per acre.

GUARANTEED ANALYSIS { 5 to 6% Ammonia.
4 to 5% Available Phosphoric Acid.
15 to 16% Actual Potash.

O. & W. Complete Corn, Potato and Onion Fertilizer

This is one of our high grade special mixtures for use on Corn, Potato and Onion Crops.

The sources of plant food are such as are exceedingly available to the plant and best suited to promoting rapid and vigorous growth. Tested at our own farms we are able to speak authoritatively as to its merits. All growers will be repaid by using this special mixture on their Crop.

Our soils are well adapted to the culture of these Crops and to make them profitable as well, is an easy matter if the culture is supplemented and promoted by the use of our special fertilizer.

GUARANTEED ANALYSIS { 4 to 5% Ammonia.
8 to 9% Available Phosphoric Acid.
4 to 5% Actual Potash.

O. & W. Special Corn, Potato and Onion Fertilizer

This special fertilizer mixture is a great favorite in the big onion districts in Massachusetts and Connecticut. In its preparation, regard for the needs of the onion crop both as to growth and quality, have been considered, and the result is a mixture best suited to the plants needs.

Give this mixture of ours a trial and its use will convince you of our claims for it. Endorsed by best growers.

Guaranteed Analysis as follows:

3 to 4% Ammonia.
8 to 9% Available Phosphoric Acid.
2 to 3% Actual Potash.

O. & W. High Grade Potato Fertilizer

This is a concentrated mixture running high in analysis in every ingredient, and as a formula, is extensively used in the potato growing sections of Maine. To produce large crops of potatoes you must feed heavily of Potash. This was thoroughly proven during the war, as even when Potash was extremely high and scare some of the Maine potato growers paid the price for this ingredient and were well repaid by increased crop.

GUARANTEED ANALYSIS { 5 to 6% Ammonia.
8 to 9% Available Phosphoric Acid.
7 to 8% Potash.

O. & W. Seeding Down Mixture for Grass

Designed to be used when seeding for permanent mowing, running high in every ingredient, and furnishing the essential things for a permanent fertilizer, namely, phosphoric acid and potash.

GUARANTEED ANALYSIS { 6 to 7% Ammonia.
8 to 9% Available Phosphoric Acid.
6 to 7% Actual Potash.

O. & W. Top Dressing for Grass

We recommend to be used from 300 to 600 lbs. per acre in the Spring as a top dressing on mowing lots. Made of quickly soluble materials, it can be applied with advantage as late as June 1st.

GUARANTEED ANALYSIS { 7 to 8% Ammonia.
4 to 5% Available Phosphoric Acid.

O. & W. Fish and Potash Crossed Fish Brand

An old time favorite brand for corn, cabbage, onions, etc. Especially adapted for light soils. This was a favorite fertilizer of our Daddy's, and rightly so.

GUARANTEED ANALYSIS { 3 to 4% Ammonia
6 to 7% Available Phosphoric Acid
5 to 6% Actual Potash.

Agricultural Lime

Lime is necessary on many soils to correct acidity and to render available the inert plant food present. We are, however, of the opinion that liming may be easily overdone, that constant application would tend to make the soil alkaline. We offer lime in two forms; Agricultural Lime, which is the flakings at the lime kilns and is made up partly of airslacked lime and also contains some lime that is not thoroughly airslacked. We offer this in carload lots in bulk or bags and in bags less car lots. We can also furnish Ground Limestone in car lots, bulk or bags and in bags less car lots.

Prices on Lime and all fertilizer mixtures on application.

~~As~~Owing to unsettled conditions the prices on all goods in this catalogue are subject to change without notice.

DESCRIPTIVE CATALOGUE and PRICE LIST
OF
Garden and Farm Seeds,
Agricultural Implements and
Fertilizers
for 1923

WE DO NOT WARRANT SEEDS

The fact that no reputable seedsman now warrants seeds in any respect being well known renders it unnecessary for us to say very much on this point, as it must be apparent to every intelligent person that no seedsman can afford to send out poor or worthless seeds. There could be no more certain ways of destroying his business. We beg to append the following notice:

The seeds offered in this catalogue have been carefully selected from most reliable sources and we believe them to be first-class in every respect, but we cannot guarantee the crop as too many conditions enter into it. Therefore we give no warranty, expressed or implied, as to description, purity, productiveness, or any other matter of any seeds we send out, and we will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are to be returned at once, and if any money has been paid for them it will be refunded.

OLDS & WHIPPLE, INC.

MAIL ORDERS AND SHIPMENTS

Prompt attention to orders by mail. Mailing blank is enclosed in Catalogue to render this service more convenient. Be particular in giving name and address. The new system of Parcel Post enables us to make shipment of large packages by mail.

SEEDS BY MAIL

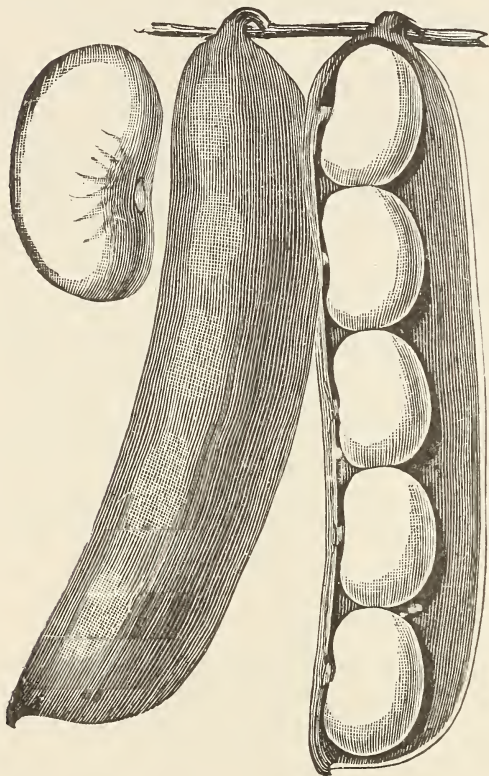
We will pay postage on seeds in packets, ounces, or by pound, with these exceptions; peas, beans, corn, onion sets, grain and grass seeds, which necessitate an extra charge of 5 cents per pound.

ASPARAGUS

An Asparagus bed may be made from one or two year old roots, planted in fall or spring. Plant the roots in rows four feet apart, leaving about twelve inches between plants in the row. Should be planted in trenches and gradually filled in as plants grow. Seeds may be sown in April in drills one foot apart and one inch deep. One ounce of seed will sow sixty feet of drill.

	Per Pkt.	Per ¼ lb.	Per lb.
Donald's Elmira.—Stalks bright green color, of mammoth size, tender and succulent,	\$0.10	\$0.20	\$0.75
The Palmetto.—Superior variety, extra large, . . . .	.10	.20	.60
Conover's Colossal.—Large and hardy, . . . .	.10	.20	.50
Donald's Elmira Roots.—Fine, large, 2 year old and fresh dug.		Per 100,	.75
Conover's Colossal Roots.—Fine, large, 2 year old and fresh dug.		Per 100,	.75
Palmetto Roots.—Fine, 2 year old.		Per 100,	.75

BEANS—Dwarf or Bush



To produce a regular succession of crops through the season, plant every two weeks, from about beginning of May to end of summer. Plant in rows 18 inches apart, two inches deep; cultivate only when soil is dry, as the scattering of earth on vines will cause them to rust. One quart will plant 100 feet of drill and one and one-half bushels for one acre.

BEANS

Owing to extremely unfavorable weather conditions, the bean crop is very short, some varieties were almost a total crop failure. Stocks are scarce and prices high.

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Burpee's Bush Lima.			
Burpee's Bush Lima.—A true bush form and immense cropper,	\$0.35	\$0.30	\$0.25
Burpee's Stringless.—Green pod, extra early, . . . .	.35	.30	.25
Fordhook Bush Lima.— . . . .	.45	40	.35

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Improved Rust Proof, Golden Wax.—Early, long, round, stringless pods,	\$0.35	\$0.30	\$0.25
Early Golden Eyed Wax.—Hardy and prolific, flat pods, early, . . . . .	.35	.30	.25
Black Wax, Prolific.—Very early, round thick pods, . . . . .	.35	.30	.25
Wardwell's Kidney Wax.—Early, flat long wax pods, very fine, . . . . .	.35	.30	.25
Early Valentine.—Improved, true round green pod, . . . . .	.35	.30	.25
Early Yellow Six Weeks.—Flat green pods, . . . . .	.30	.27	.25
Early China or Red Eye.—A productive variety, green pod, . . . . .	.30	.27	.22
Horticultural or Cranberry.—Green pod, a superior shell bean, medium early, . . . . .	.35	.30	.25
Low's Champion.—Large green flat stringless pods, . . . . .	.35	.30	.25
White Kidney.—An excellent shell bean and for baking, green pod, . . . . .	.30	.25	.20
White Marrow.—A fine winter bean, . . . . .	.30	.25	.20
Boston Favorite.—A large late dwarf horticultural, . . . . .	.35	.30	.25
Red Kidney.—An excellent shell bean, similar to White Kidney, . . . . .	.30	.25	.20

BEANS—Pole

Plant in hills three to four feet apart, putting four or five beans in a hill, and leaving space in the center for the pole. One quart of limas will plant 100 hills. One quart of the smaller seeded sorts will plant about 200 hills.

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Extra Early Jersey Lima.—An early and large variety,	\$0.35	\$0.30	\$0.25
Lima, Large White.—An old and choice variety, . . . . .	.35	.30	.25
Lima, King of the Garden.—Large and extremely productive, . . . . .	.35	.30	.25
Early Caseknife.—Long green and flat pods, used as shell and snap bean, . . . . .	.30	.26	.22
Horticultural Cranberry.—Excellent quality, . . . . .	.35	.30	.25
Early Golden Cluster Wax Pole.—Early golden pods, large and tender, . . . . .	.40	.35	.30

BEETS—Table Varieties

Sow from April to beginning of July, in drills about one foot apart, covering seeds about one inch. Thin the young plants when suitable size for greens to six or eight inches apart. One ounce sows 50 feet of drill, 5 to 6 pounds to one acre.

	Per pkt.	Per oz.	Per lb.
Crosby's Egyptian.—Early smooth and fine quality,	\$0.05	\$0.15	\$1.00
Edman's Extra Early.—One of the best, . . . . .	.05	.10	.75

	Per pkt.	Per oz.	Per lb.
Early Eclipse. —Very early, dark red color,	\$0.05	\$0.10	\$0.75
Early Egyptian. —Good color, a smooth turnip beet, . . . . .	.05	.10	.70
Early Bassano. —Earliest of all, flesh nearly white, . . . . .	.05	.10	.70
Detroit Dark Red. —Smooth, bright red, good keeper, . . . . .	.05	.10	.75



Dewing's Early Blood Turnip.

Bastian's Early Blood Turnip. —A quick large growing sort, of good color, . . . . .	.05	.10	.70
Dewing's Early Blood Turnip. —A standard variety of excellent quality, . . . . .	.05	.10	.75
Long Smooth Blood. —An excellent late variety for winter use, . . . . .	.05	.10	.70
Swiss Chard. —Fine for greens, cultivated solely for leaves, . . . . .	.05	.15	1.00

MANGOLD WURZEL

Sow in May or June in rows, 18 inches to 2 feet apart, and thin to 8 inches in the row. The value of these for stock feeding cannot be over estimated. Sow 6 to 8 pounds to one acre.

	Per pkt.	Per oz.	per lb.
Carter's Mammoth Long Red. —A heavy cropper, one of the best,	\$0.05	\$0.10	\$.65
Norbiton Giant Long Red. —Very productive, . . . . .	.05	.10	.60
Yellow Globe. —Large globular formed roots, good for shallow soils, . . . . .	.05	.10	.60
Giant Half Sugar. —Rose shape and similar to Norbiton Giant, . . . . .	.05	.10	.65
Golden Tankard. —A half-long variety of bright yellow color, . . . . .	.05	.10	.60
White Sugar, Lane's Improved. —A well known variety, . . . . .	.05	.10	.40

Mangold seed in 5 pound lots, 30 cents a pound.

BROCCOLI

A vegetable resembling Cauliflower but much hardier. Requires the same general culture as cabbage. One ounce of seed produces about 1,500 plants.

	Per pkt.	Per oz.
Purple Cape. —Medium size heads, hardy,	\$0.10	\$0.35
White Cape. —Like Purple Cape, but of cream white color. . . . .	.10	.35

BRUSSELS SPROUTS

A species of cabbage family and cultivated in about same manner. One ounce of seed will produce about 1,200 plants.

	Per pkt.	Per oz.
O. & W.'S Best	\$0.05	\$0.25

CABBAGE—Early



All Seasons.

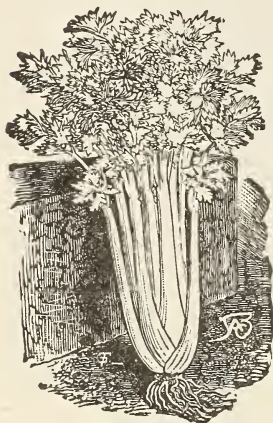
All the Cabbage family require rich, deep, well-drained soil. For the early kinds, plant in rows 30 inches apart and 16 inches between the plants. For the late varieties, three feet between the rows and two feet between the plants. For very early use, sow in January or February in hot-beds. Set out when plants are strong enough into other hot-beds or set in cold frames in March. Transplant when danger from frost is past to open ground. The late, or winter crop seed can be sown in May and the plants set out when large enough.

To destroy the green worm that attacks the cabbage plant, use a solution of one ounce of saltpetre in three gallons of water. One ounce of seed will produce about 3,000 plants, one-quarter pound for one acre.

	Per pkt.	Per oz.	Per lb.
Copenhagen Market.—Extra early round hard head	\$0.10	\$0.25	\$4.00
Early Jersey Wakefield Extra.—A fine, very early medium sized market favorite, . . . . .	.10	.25	3.00
Early Summer.—A superior, second early, heads large and solid, . . . . .	.10	.25	2.75
Early Flat Dutch.—A fine early variety for family use, . . . . .	.10	.25	3.00
Early Winnigstadt.—A medium early conical shaped head, . . . . .	.10	.25	2.50
Fottler's Brunswick.—A short stemmed early drumhead, . . . . .	.10	.25	2.75
All Seasons.—Medium early, very large and sure header, . . . . .	.10	.25	3.00

CABBAGE—Late Varieties

	Per pkt.	Per oz.	Per lb.
O. & W. Premium Flat Dutch. —An extra fine selection of the large late Flat Dutch, \$0.10		\$0.25	\$2.75
Improved American Drumhead Savoy. —Large, fine quality, excellent winter cabbage,10		.25	3.00
Stone Mason Drumhead. —A large round solid variety, .10		.25	3.00
Red Dutch Drumhead. —Fine solid dark red heads, . . .10		.25	3.00
Hollander, or Danish. —A superior winter variety, heads round, very hard, fine and tender, . . .10		.25	3.00
Sure Head. —Large growing, fine heading, solid and large, .10		.25	2.75



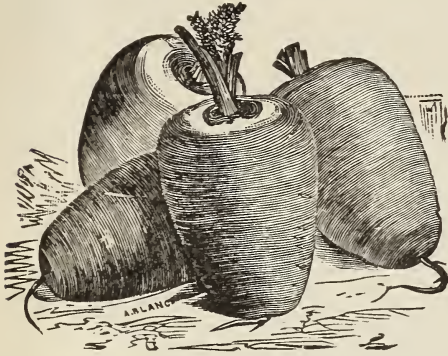
Paris Golden.

CELERY

Sow seed about the first of April in hot-bed or cold frame. Transplant four inches apart, when three inches high in rich soil; water and protect until well rooted, then transplant into rows 5 or 6 feet apart either on surface or in trenches 8 inches deep. Set the plants 10 or 12 inches apart. To blanch draw earth around the plants from time to time.

One ounce of seed will give about 4,000 plants.

	Per pkt.	Per oz.	Per lb.
Paris Golden, Self Blanching, (French.) —An early golden variety, very popular, \$0.15		\$.75	\$10.00
Boston Market. —One of the best varieties in cultivation, .10		.30	3.00
Celeriac. —Turnip rooted, used for salads and soups, . . .05		.25	2.50
White Plume. —Easily bleached, usually solid and of a pleasing nutty flavor,05		.30	3.00
Winter Queen. —One of the best winter varieties, . . .10		.30	3.00



CARROT

Carrots thrive best in rather light loam; soil should be well cultivated and well fertilized. Plant in rows 14 inches apart, and thin plants to 3 to 5 inches in the rows. Plant from the middle of April to the middle of May.

One ounce will sow 100 feet of drill. 3 to 4 pounds to one acre.

	Per pkt.	Per oz.	Per lb.
Geurande, or New Ox Heart. —An intermediate variety, .	\$0.05	\$0.10	\$1.00
Danvers Half Long. —A most desirable variety, great keeper, .	.05	.10	1.00
Improved Long Orange. —A large long rooted variety, for stock purposes, .	.05	.10	1.00
White Belgian. —Large, white, productive, for stock, .	.05	.10	.75
Early Scarlet Horn. —An early short variety for forcing, excellent for table, color deep orange, .	.05	.10	1.00
Early Half Long Scarlet. —Stump-rooted, coreless, red color, .	.05	.10	1.00
Chantenay. —A half-long, one of the finest for table use, .	.05	.10	1.00

CAULIFLOWER

Is one of the most delicious varieties of the Cabbage family. Requires a rich deep soil, a low moist situation being desirable. Plants should be set in rows about 2 feet apart and 18 inches between the plants.

One ounce will sow a bed of 40 square feet and produce about 2,000 plants.

	Per pkt.	Per ¼ oz.	Per oz.
Henderson's Snowball. —This ranks extremely high among the early varieties, it is a reliable header of good size and of rich white color, .	\$0.20	\$0.75	\$2.00
Erfurt Early Dwarf. —A good variety, .	.20	.75	2.00
Early Paris. —A standard early variety, .	.10	.45	1.40

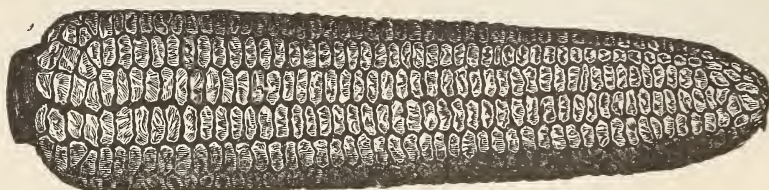
CORN—Sweet

Requires a rich warm soil. For early varieties plant when ground has become well warmed; successive plantings may be continued until July. Plant in hills from 3 to 3½ feet apart, according to the height of variety.

One quart will plant 200 hills; 8 quarts for one acre in hills.

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Early Maine. —An extra early variety, .	\$0.25	\$0.20	\$0.18
Extra Early Cory. —One of the leading extra early market varieties, .	.25	.20	.18
White Cob Cory. —Similar to Early Cory; less hardy, very satisfactory, .	.25	.20	.18
New Champion. —Fine early quality with large ears, .	.25	.20	.18
Early Minnesota. —One of the second early sorts, ears of good size, .	.25	.20	.18

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Howling Mob—	\$0.25	\$0.20	\$0.18
Crosby's Early. —An old favorite, early and of excellent quality, . . . . .	.25	.20	.18
Country Gentleman. —A rich, sweet, deep kernalled variety, with small cob, . . . . .	.25	.20	.18



Early Maine.

Squantum. —Perhaps one of the best and sweetest for main crop, . . . . .	.25	.20	.18
Evergreen. —A standard late variety, . . . . .	.25	.20	.18
Mammoth Sugar. —Extra large sweet variety, of good quality, . . . . .	.25	.22	.18
Black Mexican. —An early, tender corn of fine flavor, . . . . .	.30	.25	.20
Golden Bantam. —A yellow sweet corn, extra early and extra hardy, very tender and sweet, . . . . .	.30	.23	.20
Golden Giant.— . . . . .	.30	.23	.20

CORN—Field

(Prices subject to market changes.)

Eureka. —A well known ensilage variety of White Corn. Very leafy, of extra large growth, and we believe will produce more tons of silage than any other variety. For Ensilage only,	} at market prices.
Leaming's Early Dent. —A very popular Dent Corn, grown for both grain and Ensilage. This variety will mature in this latitude,	
Mastodon Early. —Large, free growing, very productive,	
Longfellow. —A yellow flint corn, a well and favorably known variety,	
Early Canada Improved. —A ninety day yellow flint corn. An old Standard variety grown for grain,	
Canada Red. —A red flint corn developed at our Suffield farm. Early and productive,	

Use O. & W. Special Corn, Potato and Onion Fertilizer

CRESS

To be planted in drills and sown quite thickly, on good rich ground, in early spring.

One ounce of seed will plant 100 feet of drill.

	Per pkt.	Per oz.	Per lb.
Curled. —	\$0.05	\$0.10	\$0.75

CUCUMBER

First planting should be made in May when ground is dry and warm, in hills about 4 feet apart; thin out to 3 to 4 plants to the hill when established. For pickles plant during the last two weeks in June.

One ounce will plant 50 hills; two pounds for one acre.



Improved Early White Spine.

	Per pkt.	Per oz.	Per lb.
Early Russian.—The earliest variety, about 4 inches long,	\$0.05	\$0.10	\$0.85
Early Cluster.—Bears in clusters, early and productive,	.05	.10	.85
Davis Perfect.—Dark green, good length, popular.	.05	.10	1.00
Snow Pickling.—One of the best pickling,	.05	.10	.80
Improved Early White Spine.—A standard variety of uniform good size and color,	.05	.10	.90
Green Prolific.—The very best pickling sort,	.05	.10	.85
Boston Pickling.—Produces an abundant crop of dark green color,	.05	.10	.90
London Long Green.—A large and late variety,	.05	.10	1.00

DANDELION

Sow in May in drills 12 inches apart, covering seeds about one-half inch deep. Cultivate to keep down weeds during summer and the following spring leaves will be suitable for cutting. Must be covered in winter to protect from frost.

One ounce for 100 feet of drill. One pound for one acre.

	Per pkt.	Per oz.	Per lb.
Improved Thick-Leaved.—Standard sort, very productive,	\$0.25	\$0.75	\$10.00
French Garden.—	.15	.35	4.00

EGG PLANT

Plant the seed in hot beds early in spring. Transplant when two inches high into another bed, or small pots. Plant in garden when weather is settled and warm. Should be placed about 3 feet apart, and well watered for 2 or 3 days, until they show signs of being rooted.

	Per Pkt.	Per oz.
New York Improved Purple.—The leading market variety, excellent and very productive.	\$0.15	\$0.50
Black Beauty.—Early, fruit black, round and solid,	.15	.50

ENDIVE

For early use, sow as soon as ground can be worked in spring in drills fifteen inches apart; thin plants to six inches in the row. Any ordinary soil will do, but a moist place is preferred. To blanch the leaves, gather them together when dry and tie with matting or cover with ordinary flower pots inverted.

One ounce will produce about 3000 plants.

	Per pkt.	Per oz.	Per lb.
Green Curled. —A standard sort,	\$0.05	\$0.10	\$1.00
Moss Curled. —Very ornamental, . . . .	.05	.10	1.00
Batavian Escarolle.— . . . .	.05	.10	1.10

KALE or German Greens

Plant the larger varieties in hills two by three feet apart and thin to one plant to the hill. Requires deep, rich soil. Set out plants in June and treat in same manner as for cabbage.

One ounce will produce 2,000 plants.

	Per pkt.	Per oz.	Per lb.
Green Curled Scotch. —Leaves of bright green, very tender and closely curled,	\$0.05	\$0.15	\$1.25
German Greens. —To be sown in fall for spring use, . . . .	.05	.15	1.00

KOHL RABI

An intermediate vegetable between the cabbage and turnip. Prepare as for cabbage. Sow in April in rows 18 inches apart and thin out to 8 inches apart.

One ounce gives 3,000 plants.

	Per pkt.	Per oz.
Early White Vienna. —A standard early,	\$0.10	\$0.20
Early Purple Vienna. —Very large and productive, . . . .	.10	.20

LEEK

Sow the seeds in April and transplant in July to rows 15 inches apart and 8 inches between plants.

One ounce will grow 1,000 plants.

	Per pkt.	Per oz.	Per lb.
American Flag. —A hardy and profitable sort, excellent for winter use,	\$0.10	\$0.20	\$2.00



Boston Market.

LETTUCE

Lettuce needs a rich and moist soil, should be sown in rows about 12 inches apart and the plants thinned to 10 inches apart for the heading varieties. When not grown for head they may be sown broadcast. The more rapid the growth, the better the quality.

One ounce for 3,000 plants.

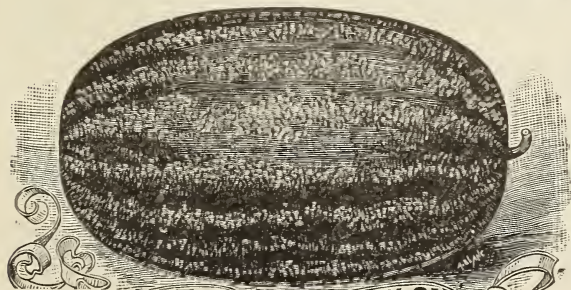
	Per pkt.	Per oz.	Per lb.
May King. —Medium size, early, good heading, a popular sort,	\$0.05	\$0.15	\$1.25
Early Curled Silesia. —Sweet, early, good variety . . . . .	.05	.15	1.25
Early Simpson. —Early, compact mass of tender leaves, . . . . .	.05	.15	1.25
Black-Seeded Simpson. —Large light-colored head variety, . . . . .	.05	.15	1.25
Boston Market. —Early, small heads, very hardy, . . . . .	.05	.15	1.25
Hanson. —Large, solid, crisp head, one of the best outdoor sorts, . . . . .	.05	.15	1.25
Tennis-Ball White Seeded. —Similar to Boston Market, . . . . .	.05	.15	1.25
Tennis-Ball Black Seeded. —Excellent for early large heads, . . . . .	.05	.15	1.25
Tomhannock. —One of the best varieties for broadcast cultivation, leaves slightly bronzed, . . . . .	.05	.15	1.25
Crisp as Ice. (Bronzed) a fine bronze leaf lettuce, . . . . .	.05	.15	1.25
Silver Ball. —Solid, compact head, very handsome, white and tender, . . . . .	.05	.15	1.40
Big Boston. —A head lettuce, for forcing or open culture, . . . . .	.05	.15	1.40

MUSTARD

Sow from April to June in drills one foot apart and cover seed lightly. Used principally for salads.

	Per oz.	Per ¼ lb.	Per lb.
White or English. —For salad or medicinal purposes,	\$0.05	\$0.15	\$0.45
Brown. —More pungent than white, . . . . .	.05	.20	.75

MELON—Water

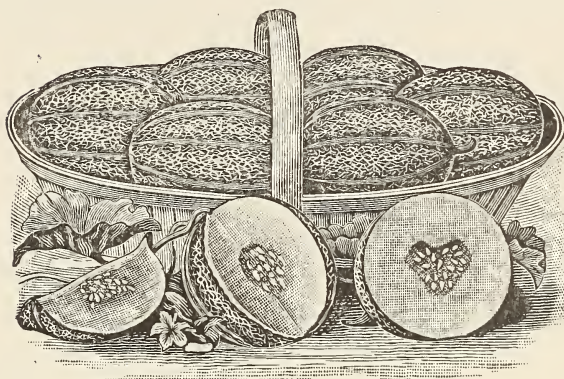


Ice Cream.

A warm light sandy loam preferred. Being tender should not be planted before middle of May. Plant in hills 5 to 6 feet apart each way for the musk varieties and 8 feet apart for the water. Cover seeds about one-half inch deep and when well started thin out to 3 plants in a hill. One ounce will plant about 15 hills; 4 pounds to the acre.

	Per pkt.	Per oz.	Per lb.
Cuban Queen. —Round, large, red meated and sweet,	\$0.05	\$0.10	\$0.85
Dark Sweet Icing. —Round, dark green and of a delicious flavor, good size, . . . . .	.05	.10	.80
Gray Monarch. —Very large, of exceptional fine quality, long, red color and very sweet, . . . . .	.05	.10	.80

	Per pkt.	Per oz.	Per lb.
Kleckley's Sweet. —Oblong in form, dark green, thin rimmed, flesh bright scarlet, white seed, sweetest of all,	\$0.05	\$0.10	\$0.85
Mountain Sweet. —An old standard variety, early and solid, . . . . .	.05	.10	.80
Phinney's Early. —Early, reliable, red fleshed, productive, . . . . .	.05	.10	.75
Ice Cream. —White seeds, medium size, solid fine flavor, one of the most popular varieties grown, . . . . .	.05	.10	.85
Kolb's Gem. —Flesh bright red, almost round, grows large, very choice, . . . . .	.05	.10	.85
Citron for Preserves.— . . . . .	.05	.10	.75



Rocky Ford Melon

MELON—Musk

One ounce will plant 80 hills; 2 to 3 pounds for one acre.

	Per pkt.	Per oz.	Per lb.
Hackensack. —Large, productive and good flavor, green fleshed	\$0.05	\$0.10	\$0.90
Rocky Ford. —A very popular variety, flesh light green, sweet and delicate flavor, . . . . .	.05	.10	1.00
Champion Market, Green Fleshed. —Very hardy and desirous, . . . . .	.05	.10	1.00
Early Yellow Cantaloupe. —Early, large and showy, . . . . .	.05	.10	1.00
Miller's Cream. —Thick meated and salmon colored flesh, delicious, . . . . .	.05	.10	1.00
Paul Rose. —An extra quality, salmon flesh, medium size, . . . . .	.05	.10	.95
Emerald Gem. —Small, but prolific, yellow meated, superior quality, . . . . .	.05	.10	1.00
Osage, Salmon Fleshed. —A deliciously sweet melon of fine flavor, . . . . .	.05	.10	1.00

NASTURTIUM

Cultivated for both use and ornament. Young seeds may be used as capers and leaves for salad purposes. The beautiful flowers, blooming freely all summer add a charm to the garden and lawn. Plant in May.

	Per oz.	Per ¼ lb.	Per lb.
Tall. —An ornamental climber,	\$0.10	\$0.25	\$0.60
Dwarf. —Fine for borders and beds, . . . . .	.10	.25	.65

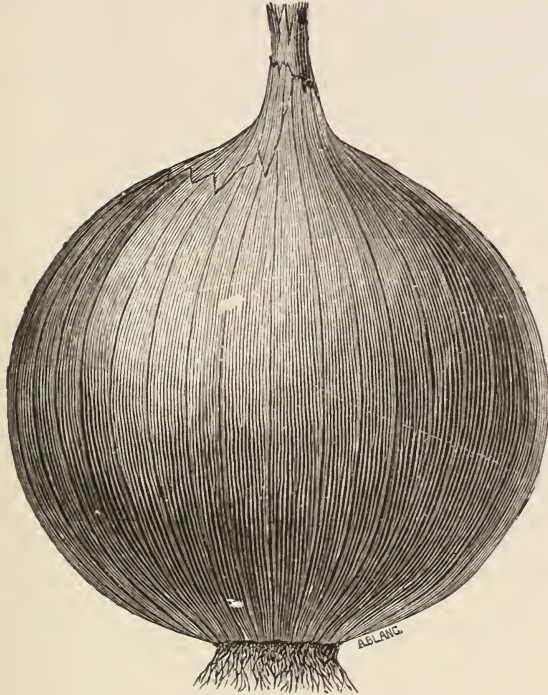
OKRA

Plant in rows 2 feet apart, thinning plants to 1 foot apart in the row.

	Per pkt.	Per oz.	Per lb.
Dwarf Green.—Early and productive,	\$0.05	\$0.10	\$0.60

ONION

(Strictly new seed—Prices subject to change.)



Southport Red Globe.

O. & W. Complete Onion Fertilizer.

A fertilizer that will produce remarkable crops. Used by many of the best growers in Massachusetts and Connecticut.

The onion thrives best in deep, loamy soil, well fertilized. Sow the seeds thinly in drills 1 foot apart. Cover seeds about $\frac{1}{4}$ inch, roll and tread soil down solidly. When 3 inches high, thin out to 3 inches apart. Cultivate well and keep out weeds.

One ounce seed will sow 100 feet of drill. Six pounds for one acre.

The seed we offer is HOME GROWN and calculated to give greater satisfaction than western grown seed.

	Per pkt.	Per oz.	Per lb.
Extra Early Red.—Early, of flat shape, mild,	\$0.10	\$0.20	\$1.75
Wethersfield Large Red.—A large yielder, excellent to keep,	.10	.20	1.75
Southport Red Globe.—Finest large red sort,	.10	.20	1.85
Southport Yellow Globe.—Handsome and late variety,	.10	.20	1.85
Yellow Globe Danvers.—One of the superior yellow globe varieties,	.10	.20	1.75
O. & W. Yellow Globe Danvers.—A fine selected strain of the Yellow Globe Danvers, specially grown for us: very choice,	.10	.25	2.00
Prize Taker.—Yellow skin, white flesh, good cropper, large size,	.10	.25	2.00
Southport White Globe.—Early, mild flavored, large, not a good keeper,	.10	.25	2.50

ONION SETS

Should be planted as early as the ground can be worked in rows 12 inches apart. Set each about 3 inches apart. When onions are grown from sets they can be used in the green state in June, or will ripen by July.

Red Top.	} at market prices.
White.—For rare-ripes,	.	.	.	.	.	.	.
Potato.	.	.	.	.	.	.	.
Yellow.	.	.	.	.	.	.	.

PARSLEY

Sow early in spring in drills 1 foot apart, covering lightly; thin out the plants to 3 to 4 inches apart; used for flavoring and garnishing. A single row forms a good edging for flower-beds or walks.

	Per pkt.	Per oz.	Per lb.
Moss Curled.—Very ornamental and productive,	\$0.05	\$0.15	\$0.90
Curled, or Doubled.—A most beautiful variety, moss-like leaves of handsome bright green color,	.05	.15	.90

PARSNIP

Make the soil very fine and plant the seed very early, in rows eighteen inches apart, thinning plants to three or five inches in the rows; seeds should be covered about one-half inch deep.

Parsnips, aside from table use, have great value for stock-feeding purposes. Are improved by allowing to remain in open ground through the winter.

One ounce to 150 feet of drill; five pounds for one acre.

	Per pkt.	Per oz.	Per lb.
Abbott's Improved Hollow Crown.—A great cropper, tender and sweet,	\$0.05	\$0.20	\$1.75
Long Smooth White.—One of the best for general cultivation,	.05	.20	1.75



PEAS

The wrinkled varieties, while the sweetest of all peas, are more liable to rot, being tender, and need to be planted thicker and later than the round, hard sorts. Soil needs to be well manured. Have the dwarf varieties in rows two and one-half feet apart; those kinds growing two to three feet high, in rows three feet apart, and the tallest in rows four feet apart. The smooth varieties may be sown as soon as ground can be worked; the wrinkled sorts when soil is well warmed.

One quart to 100 feet of drill: one and one-half bushels to an acre.

	Per lb.	5 lb. lots Per lb.	Lots of 15 lb. Per lb.
Carter's Premium Gem.			
East Hartford Extra Early.—True stock, 2½ feet, best early variety in the market, smooth variety	\$0.25	\$1.20	\$0.17

	Per lb.	5 lb. lot Per lb.	15 lb. lot Per lb.
Alaska. —Hard, blue pea, 2½ feet, extra early, . . .	\$0.25	\$0.20	\$0.17
Gradus, or Prosperity. —An extra early wrinkled pea, very large pods, of magnificent quality, . . .	.30	.25	.22
Carter's Premium Gem. —Wrinkled pea, about 12 to 15 inches high, very productive, early, . . .	.30	.25	.20
Bliss's American Wonder. —Very dwarf, early wrinkled pea, . . .	.30	.25	.20
Nott's Excelsior. —A wrinkled dwarf, of excellent variety, early, . . .	.30	.25	.20
Sutton's Excelsior. —Similar to Nott's Excelsior, but producing larger and more abundant pods, . . .	.30	.25	.20
Daisy or Dwarf Telephone. —Dwarf habit, wrinkled, large pods, second early, . . .	.30	.25	.20
Bliss's Everbearing. —Very productive, peas large and wrinkled, two and one-half feet high, . . .	.30	.24	.18
McLean's Advancer. —An old and choice variety, two and one-half feet high, wrinkled, . . .	.30	.24	.18
Heroine. —Medium early, wrinkled, two to three feet high, quality perfection, . . .	.30	.24	.18
Yorkshire Hero. —Large, wrinkled pea, tender and fine flavored, two and one-half feet high, . . .	.30	.24	.18
Thomas Laxton. —Of similar growth to Gradus, a few days later, pods are deep rich green. In the judgment of many the Thomas Laxton is even sweeter and finer flavor than Gradus. . . .	.30	.25	.22
Telephone. —Four feet high, large peas of rich, sugary flavor, . . .	.30	.25	.22
Champion of England. —An old standard variety, late, five feet high, . . .	.30	.25	.22
Canada Field. —For stock purposes, . . .	at Market Prices.		

PEPPER

Should be started in hot beds, and transplanted into open ground by end of May; set in rows eighteen inches apart and plants about twelve inches apart in the rows.

One ounce of seed will produce about 3,000 plants.

	Per pkt.	Per oz.
Sweet Mountain. —Largely grown for both market and home use, . . .	\$0.10	\$0.60
Bull Nose. —This has long been the standard sweet sort, . . .	.10	.60
Ruby King. —Most popular large red pepper in cultivation, . . .	.10	.60
Large Squash. —Thick fleshed, early and mild flavored, . . .	.10	.50
Long Red Cayenne. —The true Cayenne, hot and pungent, . . .	.10	.60
Small Red Cherry. —A small smooth and round variety; productive, . . .	.10	.60

PUMPKIN

To be cultivated in same manner as squash.

	Per oz.	Per lb.
Small Yellow Sugar. —A handsome prolific variety, good keeper, best for pies,	\$0.15	\$1.00
Large Cheese. —Very large and good keeping variety, . . . . .	.15	1.00
Connecticut Yellow Field. —Grown largely for stock purposes, . . . . .	.10	.75

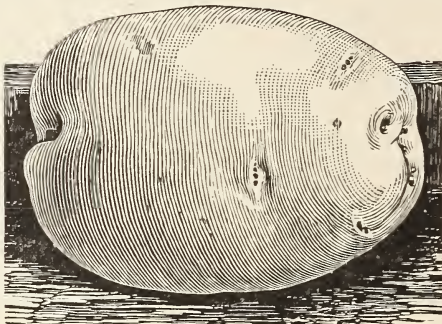
POTATOES—Northern Grown

Vermont, Maine and New Brunswick certified seed.

Use eleven bushels, or four barrels per acre. (See pages 30 and 31 for description of varieties,) **AT LOWEST MARKET PRICES.**

You will note we have reduced the number of varieties of seed potatoes. We have retained the varieties of real merit and discarded only old and worn out seedlings.

Spaulding Rose
Irish Cobbler,
Carman 3,
Green Mountain (Improved)
Gold Coin,
Dibble Russet.



Deep Scarlet Turnip.

RADISH

For early use sow in spring as soon as ground can be worked. Sow in drills six to ten inches apart and thin out to one inch apart in the rows; as the roots are more tender and brittle when grown quickly, a rich light soil is preferred. For a succession sow every two weeks.

One ounce will sow 100 feet of drill; eight pounds for one acre.

	Per pkt.	Per oz.	Per lb.
Early Scarlet Turnip. —Round red with white tip, . . . . .	.05	.10	1.00

	Per pkt.	Per oz.	Per lb.
Deep Scarlet Turnip. —An all red standard variety,	\$0.05	\$0.10	\$1.00
Early Long Scarlet, Short Top. —The standard early long variety, . . . . .	.05	.10	1.00
French Breakfast. —Most popular variety, of olive shape, red with white tip, quick growing, . . . . .	.05	.10	1.00
Scarlet Globe. —One of the best; quite early, very crisp, . . . . .	.05	.10	1.00
White Turnip. —For summer and winter use, . . . . .	.05	.10	1.00
Black Spanish Long. —Black skin, white flesh—a winter variety, . . . . .	.05	.10	1.00
Round Black Spanish. —The favorite German winter radish, . . . . .	.05	.10	1.00
Rose Color China Winter. —Grows large and tender, good for winter use, . . . . .	.05	.10	1.00

RHUBARB

Propagate from roots in richly prepared soil. Plants should be set five feet apart.

Victoria Giant— \$0.25 a root

SALSIFY, or Vegetable Oyster

Sow early in spring in light rich soil in drills fourteen inches apart and thin out to three inches apart in the row. The roots will be ready for use in October. When cooked the flavor resembles the oyster.

	Per pkt.	Per oz.	Per lb.
Sandwich Island Mammoth. —This variety grows to an unusually large size, roots tender and good flavor,	\$0.10	\$0.20	\$2.00

SPINACH

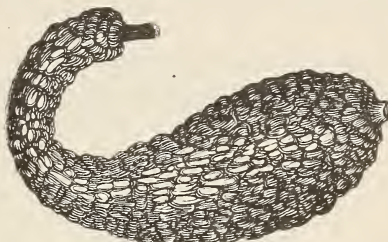
For very early spring use sow in August, for summer use sow in early spring, in drills about ten or twelve inches apart, covering the seed one inch deep. To obtain a succession sow at intervals of two weeks through the season. One ounce to 100 feet of drill, 10 pounds to one acre.

	Per oz.	Per lb.
Round Thick Leaf. —Produces dark thick leaves, somewhat crumpled,	\$0.10	\$0.40
Large Viroflay. —Grows extra large size, . . . . .	.10	.40
Long Standing, or Evergreen. —Latest in seeding, one of the best for garden use, . . . . .	.10	.40
Savoy Leaved. —Early, wrinkled and hardy . . . . .	.10	.40
New Zealand. —A very productive spreading plant, . . . . .	.15	1.00
In lots of 5 lb. other than New Zealand 30c per lb.		

SQUASH

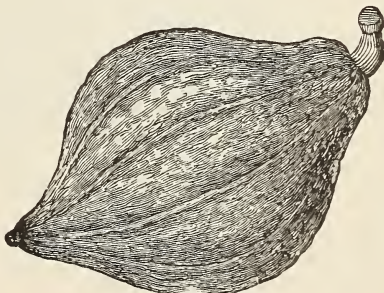
Requires rich, warm soil. Plant in hills nine to ten feet apart for running varieties, and five or six feet apart for bush sorts. Leave two or three plants to a hill. Cultivate frequently.

One ounce will sow twenty to forty hills; two to four lbs. per acre.



Summer Crookneck.

	Per pkt.	Per oz.	Per lb.
Early Summer Crookneck. —The finest bush variety,	\$0.05	\$0.10	\$1.00
Giant Summer Crookneck. —Larger than the early summer,	.05	.10	1.15
Early White Bush Scallop. —Matures early and bears continuously,	.05	.10	.90
Early Yellow Bush Scallop. —Same as Early White, except in color,	.05	.10	.90
Hubbard. —The well known and most popular winter squash,	.05	.10	1.25
Boston Marrow. —A bright orange colored squash for autumn, very productive,	.05	.10	1.00
Fordhook. —A desirable running variety,	.05	.10	1.25
Mammoth Chili. —Extra large, grows upwards 100 pounds at times,	.05	.10	1.25
Golden Hubbard. —Similar to the standard Hubbard but smaller and earlier and of a golden red color,	.05	.10	1.30
Cocozele. —Compact bush growth, fruit oblong, foot or more in length, skin dark green with stripe,	.05	.10	1.25



Hubbard Squash.

TOMATO



Livingston's Beauty.

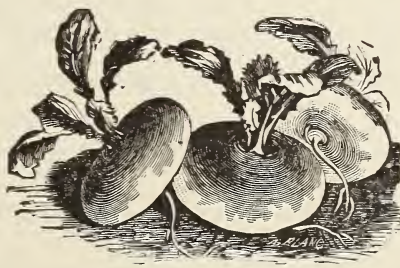
Sow the seed in March or April in hot bed. Transplant when plants are five inches high to open ground, after danger from frost has passed. Should be set four feet apart each way, on mounds of earth, to allow foliage to open and sun to reach the fruit.

	Per pkt.	Per ½ oz.	Per oz.
New Dwarf Champion. —Most popular of dwarf varieties, fruit deep purplish red,	\$0.10	\$0.20	\$0.30
Livingston's Beauty. —A large round solid smooth variety, a glowing crimson color, . . . . .	.10	.20	.30
Acme. —A standard variety, round, bright pink in color, . . . . .	.10	.20	.30
Livingston's New Stone. —Large, smooth, solid, scarlet color, . . . . .	.10	.20	.30
Ponderosa. —Largest variety grown, . . . . .	.10	.25	.40
Yellow Plum. —Small, elegant, fine for preserves, . . . . .	.10	.20	.35
Chalk's Early Jewell. —About one week later than Earliana, large, solid fine quality, . . . . .	.10	.20	.30
Spark's Earliana. —The earliest large red grown, exceedingly productive, . . . . .	.10	.20	.30
Bonnie Best. —Very early, vigorous grower, smooth, brilliant, scarlet fruit, very prolific, . . . . .	.10	.20	.35

TURNIP

For early varieties sow as soon as the ground can be worked in spring.

For fall and winter use, seed should be sown from the middle of July to middle of August, seed generally sown broadcast, using one pound to the acre.



Early Flat Dutch.

	Per pkt.	Per oz.	Per lb.
Early Purple Top Milan. —Finest early,	\$0.05	\$0.10	\$1.00
Early Flat Dutch White. —A popular market variety, . . . . .	.05	.10	.65
Purple Top Strap Leaf. —One of the standard flat varieties, . . . . .	.05	.10	.65
Yellow Globe. —Fine for table use, fall and winter, . . . . .	.05	.10	.65

	Per pkt.	Per oz.	Per lb.
Golden Ball.—Very tender, fine flavored,	\$0.05	\$0.10	\$0.65
White Egg.—Handsome, oval form, thin skin, . . . . .	.05	.10	.70
Cow Horn.—Pure white, except at top. . . . .	.05	.10	.65
Purple Top White Globe.—A thick, round, quick growing variety, . . . . .	.05	.10	65

RUTA-BAGA

Seed should be sown in drills thirty inches apart, thin out to one foot apart in the row.

	Per oz.	Per lb.
American Purple Top Swede.—Flesh deep yellow, free growing,	\$0.10	\$0.75
White Rock or Sweet German.—White and sweet, a good keeper, . . . . .	.10	.75
Skerving's Improved.—Standard field variety, . . . . .	.10	.75
Long Island Purple Top.—Yellow turnip of best quality, . . . . .	.10	.75

HERBS

	Per pkt.	Per oz.
Summer Savory,	\$0.10	\$0.20
Sage, . . . . .	.10	.60
Sweet Marjoram, . . . . .	.10	.30
Thyme, . . . . .	.15	.75
Dill, . . . . .	.05	.10

TOBACCO

We are very careful in the selection of our tobacco seed, growing much of it on our own farm and saving the seed from only such plants as bear the correct type of leaf. We buy only of the most reputable growers. This seed is thoroughly blown which removes all the light seed, as we believe the heavier seed makes the strongest plants.

	Per ½ oz.	Per oz.	Per lb.
Willow Brook Broadleaf.—Specially grown and selected,	\$0.25	\$0.50	\$7.00
John Williams' Broad Leaf, . . . . .	.25	.50	7.00
Havana, Special selected type, round point leaf, very choice, . . . . .	.25	.50	7.00
Cuban Type, shade grown, . . . . .	.40	.75	9.00
Round Tip, (not Havana) . . . . .	.40	.75	9.00

It Pays to use
OUR COMPLETE FERTILIZER
FOR THE TOBACCO CROP.

O. & W. LAWN GRASS SEED

A Perfect Lawn Mixture.

Our lawn grass mixture is composed exclusively of the best seeds of the choicest fine bladed grasses free from weeds.

It will produce a rich, velvety lawn, an enduring, elastic turf. To get the best results proper drainage and thorough preparation of the soil is necessary; this being done our seed mixture assures a beautiful lawn.

We recommend sowing about one quart to a space fifteen feet square, or four bushels to the acre.

Price, Per qt., 30c. 2 qts., 55c. $\frac{1}{2}$ peck, 85c. Peck, \$1.60 Bushel, \$6.00

Alphano Humus

At Alphano, New Jersey, there is a wonderful deposit of humus so free from acid and so rich in plant foods that when properly drained and deeply cultivated it at once produces abundant crops. Alphano humus is an all-around soil builder and fertility producer. It is a black velvety enricher that is odorless and free from weed seeds. It comes to you in a dry, finely granulated form, making it easy to thoroughly mix with the soil. It is liberally supplied with nitrogen, phosphate, potash and lime, in both organic and mineral combination.

For new lawns spread on Alphano Humus at the rate of 200 pounds to every 1000 square feet and thoroughly mix with soil by raking, then seed and roll.

Get our booklet on this material showing how to make beautiful lawns.

In lots of 100 lbs. to 500 lbs., \$1.50 per cwt.

In lots of 500 lbs. to 2000 lbs., \$1.25 per cwt.

Ton lots and over, \$1.20 per cwt.

Our Lawn and Garden Fertilizer

For Spring and Early Summer Treatment

To maintain a luxuriant lawn, proper fertilizing is necessary.

The old method of applying stable manure, so objectionable because it carries weed seeds as well as being unsightly and odorous, is no longer practiced. We manufacture a lawn dressing carrying all the essential plant foods so necessary to produce luxuriant growth and dark, rich green color so much desired.

We recommend for lawns that it be used at rate of 100 lbs. for 7,500 sq. ft. For gardens double the quantity.

PRICES (Delivered in the city):

	100	50	25	10	5 lbs.
Garden Fertilizer	\$3.50	\$1.90	\$1.25	\$0.75	\$0.40
Lawn Fertilizer	3.50	1.90	1.25	.75	.40

We also have for Lawns and Gardens:

	100	50	25	10	5 lbs.
Bone Meal	\$3.75	\$2.00	\$1.35	\$0.75	\$0.40
Sheep Manure (Sheep's Head Brand)	3.25	1.85	1.25	.65	.35
Pulverized Poultry Manure	3.50	1.90	1.25	.75	.40
Hard Wood Ashes	3.00	1.75			
Lime	1.50	.90	.60	.40	.25
Tobacco Dust	2.50	1.50	.85	.50	.30

A Selected List of Popular Flower Seeds



The cultivation of flowers well repays all the labor and care bestowed on them. Much of the disappointment attending unsuccessful cultivation could be overcome by careful planting and observance of those conditions of soil and growth peculiar to these sensitive plants. The soil should be mellow and well enriched with compost or fertilizer. If made into beds they should be well drained. The soil also requires to be made as fine as possible, not lumpy. Seeds should be covered in strict proportion to their size. The smaller seeds need little, if any covering.

After sowing they should be well *firmed* by pressing the surface with a smooth planed board. On each package directions are given specific to that kind.

	Pkt.		Pkt.		Pkt.
Ageratum,	\$0.05	Cosmos, Mixed,	.10	Morning Glory,	\$0.05
Sweet Alyssum,	.05	Crysanthemum,		Nasturtium, Tall,	.05
Asters, White,	.10	White,	.10	Dwarf,	.05
Mixed,	.10	Mixed,	.10	Poppy, Shirley,	.10
Bachelor's Buttons,	.10	Dahlia, Single,	.10	Mixed,	.10
Balsam, Mixed,	.05	Double,	.10	Pansy,	.10
Carnation,		Four-O-Clocks,	.05	Petunia,	.10
Marguerite,	.10	Forget-me-not,	.10	Phlox, Drummondi,	.10
Calliopsis,	.10	Gaillardia,	.10	Stocks Mixed,	.10
Canna, Mixed,	.05	Heliotrope,	.10	Sweet William,	.05
Candytuft,	.05	Hollyhock,	.10	Verbena,	.05
Castor Beans,	.05	Marigold,	.05	Zinnia,	.05
Chinese Pink,	.10	Mignonette,	.10		

SWEET PEAS

The Queen Flower of the Garden

A List of the Choicest Selected Named Varieties of the Famous Spencer Type of Sweet Peas.

For many years we have taken just pride in our sweet peas. This year we offer these separate named varieties of the Spencer sweet peas, whose wonderful coloring and form will surely prove a great delight to our customers. We shall have these separate varieties in bulk for those who desire to plant straight colors and also a mixture of these same varieties for those who wish to sow in this way. Everyone should try some of these famous Spencer Sweet Peas. You will be amazed at the beauty and showing they make.

	$\frac{1}{2}$ oz.	oz.	$\frac{1}{4}$ lb.
Mrs. Routzhan.—Apricot, pink and straw color,	\$0.15	\$0.25	\$0.75
Apple Blossom.—Crimson and light pink,	"	"	"
Asta Ohm.—Pinkish lavender, charming soft lavender suffused with mauve,	"	"	"
Aurora.—Orange and white striped,	"	"	"
King Edward.—A deep red. . . .	"	"	"
Dainty.—A white with pink edge. Ground color is pure white with a very distinct margin of rose pink, . .	"	"	"
Elfrieda Pearson.—Light, pink flowers of extra large size, . .	"	"	"
Florence Nightingale.—Bluish lavender, enlivened by a very faint sheen of rose pink,	"	"	"
Primrose.—The color is a clear primrose throughout. Flowers measure two inches across. . . .	"	"	"
George Herbert.—Rose crimson, gigantic flowers, borne four to a stem,	"	"	"
Queen Victoria.—Buff with a blush tint, a most pleasing color effect. . . .	"	"	"
Senator.—Chocolate, purple and white striped. A combination of deep claret and chocolate on a field of lilac. . . .	"	"	"
Thomas Stevenson.—Flowers of bright, flaming orange of immense size,	"	"	"
Tennant.—A purplish mauve, the best of the heliotrope shades,	"	"	"
White Spencer.—Pure white wave flowers of large sizes, . .	"	"	"
	oz.	$\frac{1}{4}$ lb.	per lb.
Choice Spencer Mixed.—A mixture of these choice Spencer varieties,	\$0.20	\$0.50	\$1.75

Sweet Peas should be planted in drills about 2 inches deep, well manured and given plenty of water.

List of Grass, Clover and Millet Seed

Inoculate this
Seed with
HUMOGERM

(At market Prices)

Inoculate this
Seed with
HUMOGERM

Timothy, or Herd's Grass. One of, if not the commonest and best known grasses. Very valuable for hay. Perennial, fibrous and often bulbous rooted. (45 lbs. to the bushel.)

Red Top. Is a fine permanent grass. Often sown with timothy and red clover, in which case the clover soon disappears to be replaced by timothy, which in turn gives way to the red top. Very valuable in mixtures for permanent pastures.

Chaff Red Top 10 lbs. to the bushel. Fancy or cleaned 35 lbs. to the bushel.

Kentucky Blue Grass. Also called June grass. Root-creeping, perennial, flowers in June. It requires about two to three years to become well set and does not arrive at perfection as a pasture grass until the third or fourth season.

(14 lbs. to the bushel.)

Orchard Grass. A perennial grass, flowers from June to July. Very valuable for pastures, also in connection with timothy and clover for hay crops. When used with timothy use one bushel orchard and 8 lbs. clover. If sown alone use three bushels to the acre. (14 lbs. to the bushel.)

Rhode Island Bent. Root-creeping, perennial, flowers in July. Very valuable for lawn purposes. Sow from three to four bushels to the acre.

(10 lbs. to the bushel.)

Large Red, or Mammoth Clover. Grows from four to five feet high; stocks so coarse that cattle will eat but leaves only, but by its judicious use, exhausted lands may be reclaimed. (60 lbs. to the bushel.)

Medium Red Clover. The most important of all the varieties of clover for the practical purposes of agriculture. Sown with timothy and other grasses it produces desirable hay or pastures. (60 lbs. to the bushel.)

White Clover. The value of this clover is well known; it is found in most every natural pasture. It is adapted to all soils. Being deep-rooted it withstands drought when grown on dry, sandy sections. It should form a part of all mixtures for permanent pastures. (60 lbs. to the bushel.)

Alsike, (Clover). This is one of the hardy varieties. It resists cold, extreme drought and wet, and on rich warm soils yields immense crops of hay, or pasture of good quality. (60 lbs. to the bushel.)

Alfalfa (Clover). A heavy forage crop doing well in almost all localities. Requires well limed soil and good drainage.

Hungarian (grass) Millet. Splendid forage crop for light land. On rich land two crops may be grown the same season. Withstands drought and yields abundantly. (48 lbs. to the bushel.)

Golden, or German Millet. A heavier cropper than the Hungarian, and needs a longer season and a stiffer soil, stands up well, is easily cured, makes a coarse, harsh hay, which is greedily eaten by all kinds of stock. (50 lbs. to the bushel.)

Japanese Millet. This is by many considered the most valuable of all forage plants. It makes more hay than German millet or any other. Although it grows large, sometimes seven or eight feet high, the hay is of excellent quality. It is adapted to all sections.

Use O. & W. Special Grass Fertilizer
The Fertilizer That Makes Grass Grow.

Grain and Miscellaneous Seeds for Fodder Ensilage and Soiling Crops.

(All at Prevailing Market Prices.)

Inoculate this
Seed with
HUMOGERM

Ensilage and Fodder

The productive capacity of the farm for stock purposes is greatly enhanced by the growing of silage crops.

It has become well known that by the feeding of silage there is a marked increase of profits to the dairy farmer.

We have a selected stock of seeds for silage and green fodder crops as listed below.

Eureka. The greatest of Ensilage varieties. A White Corn of extra large growth leafy and yielding immense returns for silage,

Leaming's Dent Corn. A very early and productive variety.

Mastodon Dent Corn. A strong growing, early, with large stalks and large grain.

Improved Canada Corn,—The standard yellow flint corn.

Longfellow Yellow Flint. A well known flint variety.

Canada Field Peas. Grown largely with oats as fodder crop. At market prices.

Leguminous Plants as Soiling Crops

All the leguminous plants (peas, clovers and beans, etc.,) have the power of taking up the free nitrogen in the air and converting it into available forms of ammonia so very valuable as a fertilizing ingredient to the soil.

Therefore the roots (or, as in some cases where the entire plant is turned under) provides a large supply of available ammonia for the crops which are to follow.

Cow Peas,	.	.	.	.	.	at lowest market prices
Soja Beans (Soy Beans),	.	.	.	.	.	" " "
Mammoth Clover,	.	.	.	.	.	" " "
Medium Clover,	.	.	.	.	.	" " "
Vicia Villosa, or Hairy Vetch,	.	.	.	.	.	" " "

GRAINS

Barley,	.	.	.	.	.	at lowest market prices
Japanese Buckwheat,	.	.	.	.	.	" " "
Silver Hull Buckwheat,	.	.	.	.	.	" " "
Rye,	.	.	.	.	.	" " "
Seed Oats,	.	.	.	.	.	at market price

Use "O. & W." Special Grain Fertilizer

Inoculate this
Seed with
HUMOGERM

Certified Seed Potatoes

Grown for Seed by Seed Growers in Maine, Vermont and New Brunswick

We are offering this year in addition to our carefully selected Maine Seed Potatoes,
CERTIFIED SEED AS FOLLOWS:

Certified Green Mountains from Maine.

Certified Green Mountains from Vermont.

Certified Irish Cobblers from New Brunswick, Dominion of Canada.

In selecting this seed we have not been content with it being simply certified but have selected only from heavy producing strains. We most thoroughly believe you can increase your yield per acre from 50 to 100 bushels by using this seed, and are more than justified in paying the necessarily advanced price over other stock.

We do not believe any argument is necessary to convince our Farmers that it pays to plant the best seed obtainable. Potatoes from the far North are grown under ideal conditions.

Aroostook County has the natural Potato soil and an almost perfect Potato climate. This combination produces the heaviest crops.

According to the 1921 government reports, the Maine Potato Crop averaged nearly 300 bushels per acre. This is nearly double any other section, and three times the average yield of most states.

Northern Seed brought to our State, has a vigor that our own Potatoes do not have, produces healthier vines and a much larger yield of Potatoes.

It pays to plant Maine Seed.

PROFITS IN POTATOES

Increased profits from Potatoes depend largely upon increased yield, better quality and lower production cost.

Acre costs are practically fixed. Machinery and labor saving devices reduce them. Proper spraying and cultivation improve yields and quality and prevent unnecessary losses.

In 1920, reports received from nineteen farmers in Michigan and Wisconsin, who harvested both fertilized and unfertilized Potatoes, showed an average gain of over 200 bushels for each ton of Fertilizer. Figure the profits for yourself. It pays to Fertilize liberally.

ADOPT THESE PRACTICES FOR PROFITS IN POTATOES:

1. Start with Maine grown, disease-free Seed.
2. Get more hills and consequently more Potato to the acre, by closer planting.
3. Use Fertilizer liberally.
4. Protect the crop from insect pests and plant diseases by proper spraying, so that the plant can make the best use of the plant food elements.
5. Use up-to-date machinery to reduce labor costs.

We speak from experience when we say it is a mistake:

- To cut Seed a long time before using ;
- To allow the Fertilizer to touch the Seed pieces ;
- To allow the Seed pieces to remain in the sun uncovered ;
- To plant Seed grown in any section but the far north ;
- To plant less than 4 bbls. per acre ;
- To expect a good crop from small Seed pieces ;
- To plant Potatoes without first thoroughly pulverizing the soil ;
- To buy Seeds from any but *reliable* Seedsmen.

Spaulding Rose.—This is a Rose variety, pink skin, good table quality and an enormous yielder.

Irish Cobbler.—An excellent extra early variety, will mature in seven weeks from time of planting; in color pure white with deep eyes, usually of good cooking quality.

Use O. & W. Potato Fertilizer

The following is a copy of letter received by us:

COOPERATIVE EXTENSION WORK
AGRICULTURE AND HOME ECONOMICS

State of Connecticut.

Connecticut Agricultural College

EXTENSION SERVICE

U. S. Department of Agriculture Cooperating

Olds & Whipple,

Storrs, Conn., January 19, 1923.

166 State St., Hartford, Conn.

Gentlemen:

For the last nine years the Storrs Experiment Station of the Connecticut Agricultural College has been testing the yielding capacity of different strains of potatoes grown in different localities, and also certified against uncertified seed. The Extension Service of the College has also conducted a large number of demonstrations throughout the state to show the difference in yields of certified, uncertified and native seed potatoes with the result that the more progressive farmers in the state at the present time are using only certified seed. Each year there is a large increase in the number of farmers following this practice. The following is a summary of the results of these tests conducted by the Storrs Experiment Station showing the 1922 yields:

Thirty-four certified strains gave an average yield of 273 bushels per acre.

Twenty uncertified strains gave an average yield of 221 bushels per acre.

This shows a difference of 52 bushels per acre in favor of certified seed over uncertified seed.

The Storrs Station test comparing native seed stock with northern grown seed shows that native seed produced from northern grown seed purchased the previous year gives 25% less yield than new northern grown seed. Also, that the native seed produced from northern grown seed purchased two years previous gives 51% less yield than new seed stock.

This clearly demonstrates that the practice of many farmers to use their own home grown seed or seed grown in their immediate locality is decidedly unprofitable. If this practice is followed they may expect to get from 50 to 100 bushels per acre less than they would get by using northern grown certified seed.

The policy of the Extension Service of the Connecticut Agricultural College therefore is:

1. To recommend Certified Northern Grown Seed Potatoes if they can be obtained.

2. If certified seed stock cannot be obtained to recommend selected northern grown seed stock.

3. To discourage farmers in the use of home grown seed.

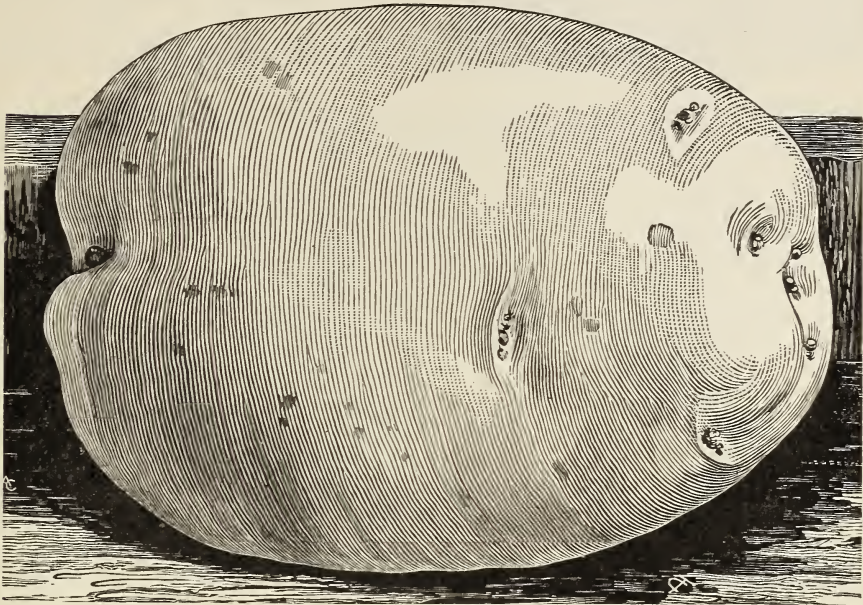
Realizing that you are distributors of seed it is our thought that this information will be of value to you in the purchase of your seed supplies and that you may cooperate with our Extension Service in selling the idea of better seed to farmers.

Should you be interested in getting more information with regard to the results secured here at Storrs, it will be a pleasure to supply you with the details of our experimental work.

(Signed)

Yours very truly,

H. J. BAKER, Director.



Carman 3.—A late Maine crop potato; this variety will produce almost all large potatoes and but few small ones, claimed by its introducers to outyield any other variety. Good keeping qualities.

Gold Coin.—Productive and of unsurpassed quality, very uniform in size. Skin a light golden tinge, usually having a russet appearance which indicates good table qualities; a vigorous grower not easily effected by blight.

Improved Green Mountain.—This variety is too well known to require any description; it is recognized as the standard of excellence in all New England; white skinned, oval formed, smooth and attractive and a good yielder.

To get the best results potatoes must be carefully sprayed. Use Bordeaux Mixture Powder, 8 pounds to 50 gallons of water. Apply 50 gallons of this solution per acre. First application when vines are from four to six inches high. Subsequent applications from 10 days to 2 weeks until 4 to 6 applications have been made. This treatment is to control blight and flea beetle. As soon as potato bugs put in their appearance add 4 to 6 lbs. of Arsenate of Lead Paste or 2 to 3 lbs. Arsenate of Lead Powder to each 50 gallons of diluted Bordeaux Mixture or 50 gallons of water if Bordeaux is not being applied. One application of Arsenate of Lead is usually sufficient to control Potato Bugs. However, during seasons when they are especially bad, two to three applications may be necessary to cover new growth of foliage.

It Pays to use our Potato Fertilizer

Legume Inoculation
HUMOGERM

A Seed and Soil INOCULANT

**That Increases Crop Production and Greatly
Improves the Soil**



Roots like this mean bigger
yields—better soil.

Crop and soil experts agree that for best growth, and to put atmospheric nitrogen in the soil, it will pay all farmers to inoculate all legumes, even where they are at present successfully grown. The cost is trivial when compared with the profit it will bring you. Legumes are clovers, peas, and beans, alfalfa, soy beans, vetches, and other plants that grow their seeds in a pod. Their roots are the home of bacteria that draw fertility-building nitrogen from the air and store it in swellings on the roots, called nodules. These nodules not only feed nitrogen to the crop they are on, but rot away in the ground and supply valuable nitrogen to the soil for future bumper crops of corn, wheat, cotton, oats, fruits, etc.

**HUMOGERM is Economical
and Easy to Use**

Humogerm carries the nitrifying bacteria in a porous humus medium which acts as a natural home for them—keeps them fresh, active and vigorous. The ventilated cans are friction top and open easily without cutting.

Place seed in pile, moisten slightly with water and a little sugar, pour on HUMOGERM, and plant in usual way. This gives thorough inoculation, and is cheaper, safer and better than the discredited, laborious soil transfer method.

How to Order. Specify crop and number of bushels you wish to inoculate. The can unit designations are on the bushel basis; for instance, the 1 bu. size contains sufficient culture to thoroughly inoculate 1 bu. of legume seed, any variety.

Special garden size for peas, beans and sweet peas, 25 cts. You will be delighted with the fine results. Prices: $\frac{1}{4}$ bu., 35 cts., $\frac{1}{2}$ bu., 60 cts.; 1 bu., \$1.00; $2\frac{1}{2}$ bu., \$2.25.

When more than one bushel of seed is planted to the acre, the 1 bu. size contains sufficient inoculation for the amount of seed planted on one acre.

**WE CARRY IN STOCK AT ALL TIMES
AT MARKET PRICES:**

Arsenate of Lead Paste
Arsenate of Lead Powder
Black Leaf "40"
Bordeaux Mixture Powder
Bug Death
Lime & Sulphur Powder
Lime & Sulphur Solution

Niagara Potato Dust
Niagara Wildfire Dust
Paris Green
Plant Lice Killer
Pyrox
Sanders Wildfire Dust



Agricultural Implements

Farm and Garden Tools

Owing to unsettled market conditions, all prices on implements and tools subject to change without notice.

The following pages are devoted to a description of farm implements which we sell. Our selection of these has been made in the same careful way as governs the selection of all the goods we offer to our customers.

Our object and desire being to sell only the best and such as will be most acceptable to our trade, both in point of service, convenience, and economy.

A partial list follows of some goods we do not illustrate. Read it over carefully as it may contain something you need. Samples of all may be seen at our showrooms, 164-8 State St., and prices will be made upon application. Write us also if what you need is not listed here, as we aim to make our store the headquarters for everything needed on the farm.

Brooders, Coal Burning
 Cider Mills
 Corn Huskers (Power)
 Corn Knives
 Corn Planters (Hand)
 Corn Shellers
 Double Trees
 Ensilage Cutters
 Fan Mills
 Grass Hooks
 Hose
 Hose Reels
 Incubators, Buckeye
 Lawn Sprinklers
 Neckyokes
 Nozzles
 Post Hole Diggers
 Potato Cutters
 Poultry Supplies
 Root Cutters
 Saw Tables
 Scythes & Snaths
 Scythe Stones
 Seeders, Cahoon, Hand
 Seeders, Cyclone, Hand
 Seeders, Thompson Wheelbarrow
 Shovel Plows
 Singletrees
 Sprayers, Hand
 Sprayers, Perfection, Pressure
 Sprayers, Vermorel, Pressure
 Step Ladders
 Tobacco Presses Weeders, Hand, 3 & 5 tooth Wine Presses

PLEASE NOTE.

We make a point of
 keeping on hand a line
 of repairs for Plows,
 Harrows, and all other
 implements we sell.

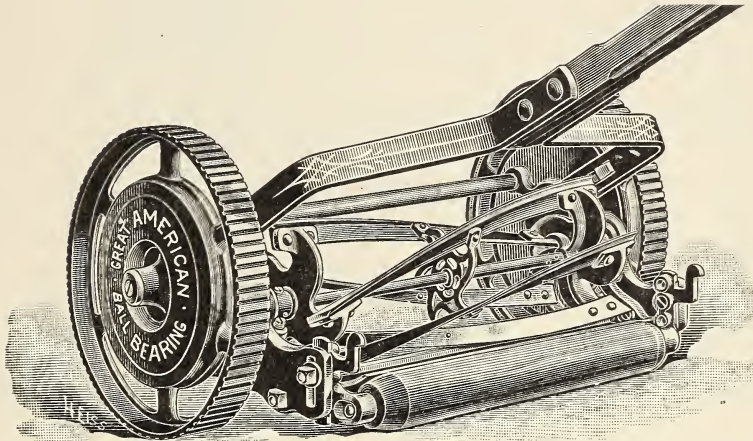
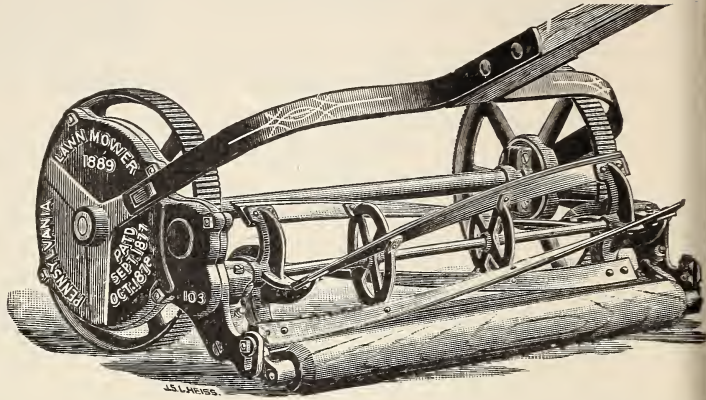
We will gladly make prices and send special reading matter on any of the above.

"PENNSYLVANIA" Hand and Horse Lawn Mowers

Sizes 15, 17, 19, and 21 inch High Wheel.

The "Pennsylvania" has been recognized for many years as the standard among Lawn Mowers.

Cuts longer grass, requires less repairs than any other mower made. Used on the State Capitol grounds and by all first class gardeners everywhere.



GREAT AMERICAN Lawn Mower

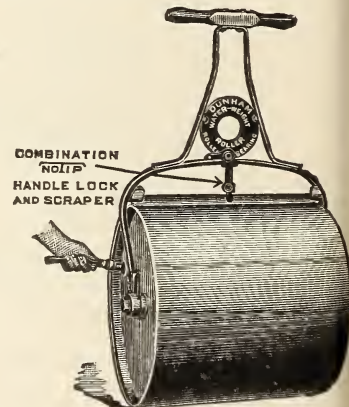
Sizes 15, 17, 19 and 21 inch., High Wheel.

This Mower is of the same manufacture as the "Pennsylvania," and is a high grade machine throughout. Has ball-bearing equipment which insures less friction and wear. It has been sold by us for eleven years and given highest satisfaction.

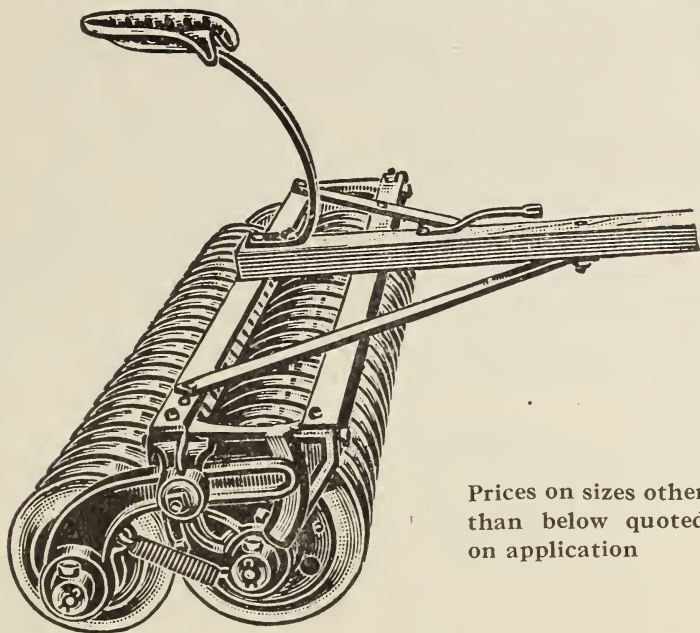
The Genuine Dunham Water Weight Lawn Roller

The water weight lawn roller has almost entirely superseded the old fashioned cast iron roller. By regulating the amount of water it can be made to weigh as desired. We offer it in three sizes:

	Diameter	Width of Drum	Weight Empty	Weight Full	Price
WB 3	14"	20"	46 lbs.	149 lbs.	\$15.00
WB 5	18"	24"	76 "	275 "	18.50
WB 7	24"	24"	95 "	418 "	22.00



The New Roller-Bearing, Light Draft, D-Type Brillion King Soil Pulverizer



Prices on sizes other
than below quoted
on application

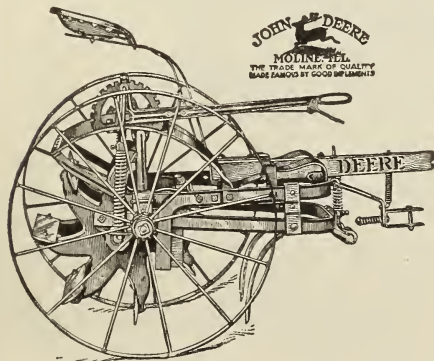
To make your soil yield the greatest possible return for your money, time and labor, you must first properly prepare the seed bed. A certain amount of moisture is absolutely necessary for dissolving the plant food particulars in the soil. Therefore, the soil must be so pulverized and packed as to retain the proper moisture for feeding the plant. Mere plowing and harrowing is not enough as there is too much air space left between the furrow slices. Heavy sod land should be well disced before the pulverizer is used. Most farmers who have tractors do both operations at once by hitching the pulverizer behind the harrow. Made in single and double gang and in many sizes.

D-60 Double Gang 6 feet long, 29 sections, front gang 15" in diameter,
rear gang 12" in diameter, Price \$65.00

Less 5% discount for cash

F-84 Single Gang 8 feet long, 21 sections, 15" in diameter, Price \$57.75

Less 5% discount for cash



STALK CUTTERS

These machines are great labor savers. Any farmer raising a considerable acreage of corn, Primed or Shade tobacco should own one.

Nine knife John Deere Cutter,
with Neck Yoke and Evener, \$52.50

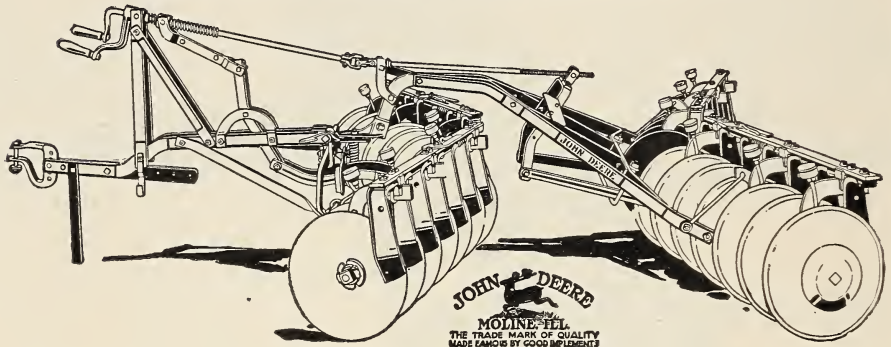
Less 5 % discount for cash

Above Machine less Neck Yoke
and Evener, 50.00

Less 5% discount for cash

LAND ROLLERS**8 Feet in Length****Price \$45.00**

5% discount for cash

JOHN DEERE MODEL "L" TRACTOR DISC HARROW WITH YIELDING LOCK**For Use with Any Standard Tractor****Convenient Angling Cranks****Patented Aligning Device****A Flexible Tractor Disc Harrow****Adjustable Disc Scrapers****Convenient Grease Cups**

Model I, 24-16"-6 ft. cut

\$110.00

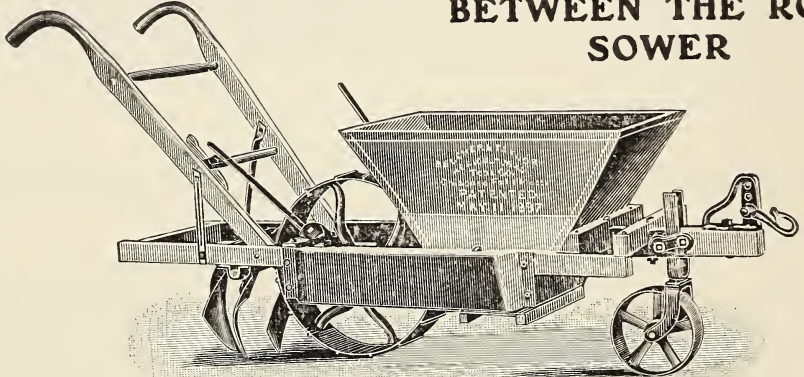
" L, 28-16"-7 ft. "

120.00

" L, 32-16"-8 ft. "

130.00

5% Cash Discount

**BETWEEN THE ROW
SOWER**

For sowing fertilizers between rows or for doing other surface work, as some tobacco growers claim that a part of the fertilizing should be done after the first hoeing. The machine is made with wheel inside the frame, and covers a space of 12 inches wide with fertilizer. It has three cultivator teeth, adjustably attached to back end of machine for covering. Price, \$32.00.

No. 21 McWhorter Wheelbarrow Fertilizer Sower **Price \$18.00**

5% discount for cash

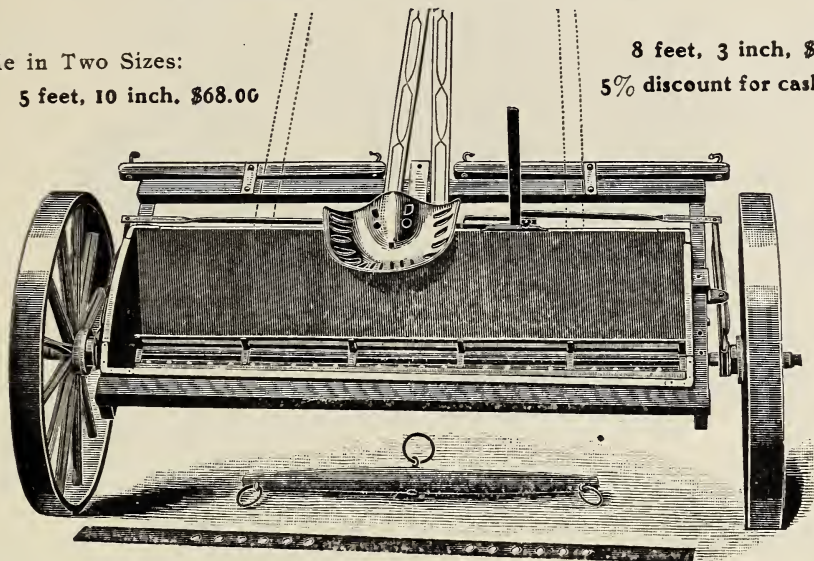
Stevens Fertilizer Sower

Made in Two Sizes:

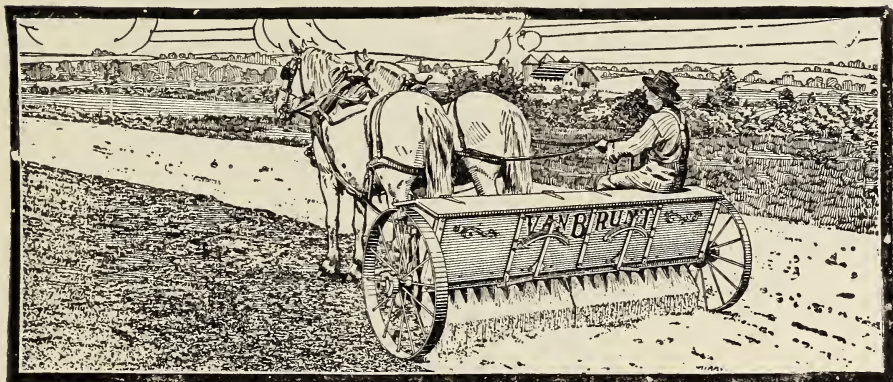
5 feet, 10 inch. \$68.00

8 feet, 3 inch, \$72.00

5% discount for cash



Van Brunt Lime and Fertilizer Sower



Feed the Soil That Feeds You

Bearing a crop is work for the soil just as your daily duties are work for you. Without food you cannot continue long to work. Unless you return nourishment to the soil, in time it, also, will cease to produce.

Put lime or other standard fertilizer on your soil. In order to do this at the least possible cost, use a machine built

for the purpose—the Van Brunt Lime and Fertilizer Sower. This machine covers eight feet of ground, carries ten bushels and distributes 150 to 8000 pounds per acre.

If you will just drop in at your first opportunity, we will be glad to show you the Van Brunt improved rotary wing force feeds that insure even distribution.

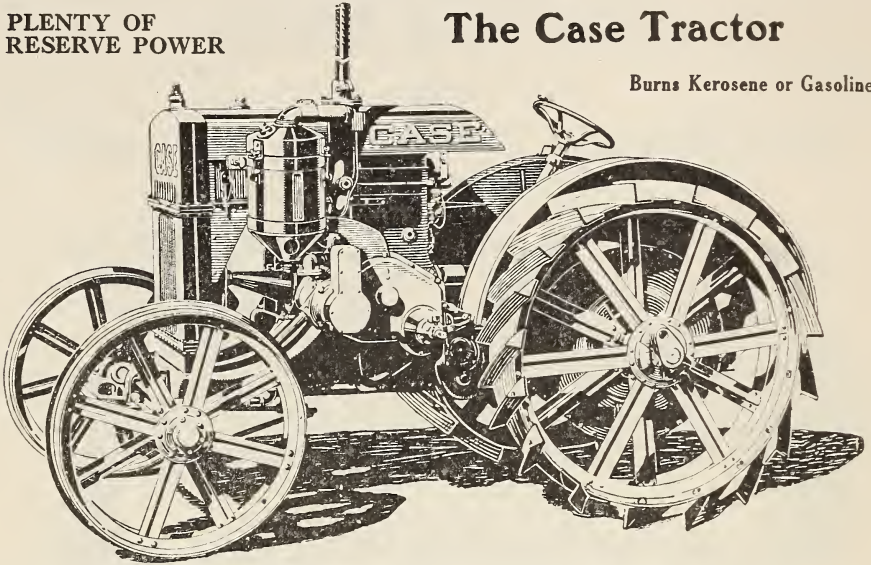
Price \$72.00

5% Discount for Cash

**PLENTY OF
RESERVE POWER**

The Case Tractor

Burns Kerosene or Gasoline



HOW TO CHOOSE A TRACTOR

If it were possible for you to consult a group of the foremost tractor engineers on the purchase of a tractor, if you were to seek their advice and accept their unbiased opinions, here are some of the things they would say to you:

Choose the tractor with a four-cylinder valve-in-head motor designed to stand the severe service a tractor motor is subjected to. It should burn kerosene economically—it should continuously develop its full rated horsepower on that fuel without overheating.

Choose a tractor that can develop a liberal reserve in excess of its rated horsepower.

Choose the tractor with all cut steel, spur gears, the simplest type of transmission and assurance for durability.

Choose the tractor that has all vital working parts enclosed in dust proof, oil tight housings.

Choose the tractor that provides accessibility.

Choose the tractor that has a high grade, high tension, dust and water proof magneto, requiring no batteries

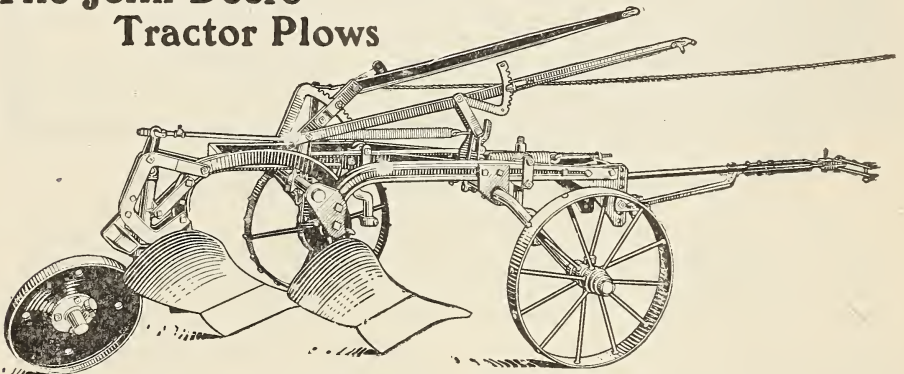
Choose the tractor that is handy for all drawbar and belt work.

Choose the tractor built by a concern whose reputation you know to be excellent and with sufficient financial responsibility to make its guarantee worth something to you.

Choose the tractor backed by a concern with active, up-to-date branch houses and dealers to give the right kind of service at the right time.

All above features are embodied in the Case. Prices on Application.

The John Deere Tractor Plows



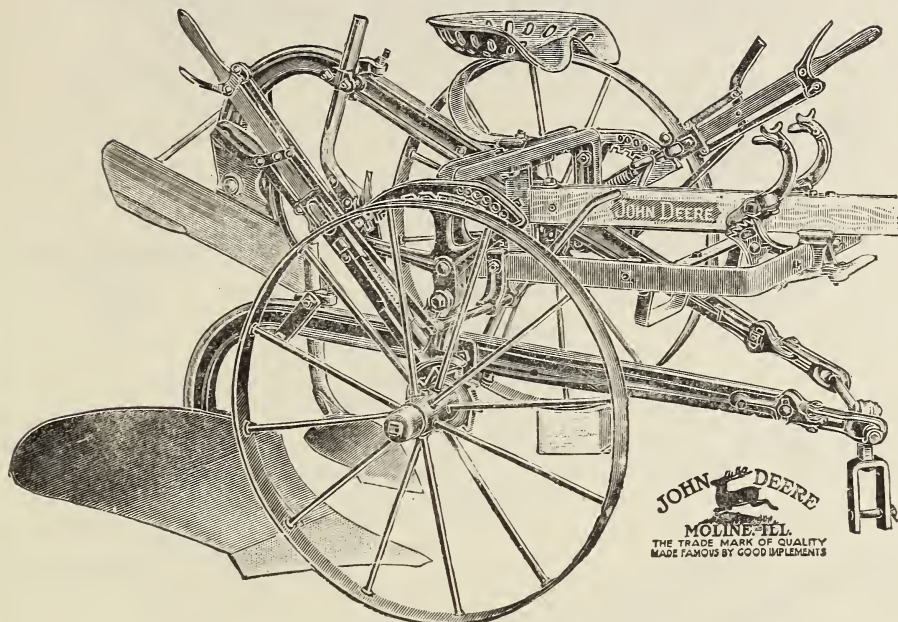
John Deere Tractor Plows are made to meet every Tractor Plowing requirement to best advantage. Into their construction goes the experience of more than 80 years of leadership in plow-making. There is special satisfaction to every user in the continued good service the John Deere Tractor Plows give.

No. 5 —1441S. 28 inch cut with combination Jointer and Rolling Coulters,
Price \$125.00 less 5% Discount for Cash.

No. 40—1441S. 28 inch cut with combination Jointer and Rolling Coulters,
Price \$90.00 less 5% Discount for Cash.

The No. 40 Plow is designed to follow the Fordson Tractor. It is superior in our opinion, to any other Plow designed for this Tractor, as it has a flexible hitch.

The John Deere Two Way Sulky Plow



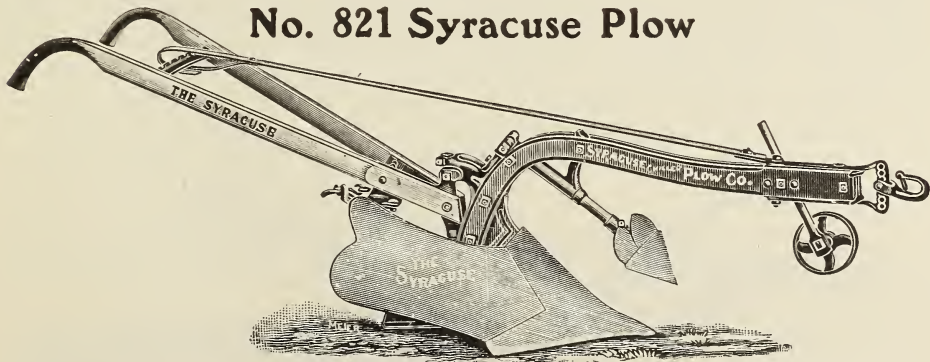
Combined in the John Deere two way plow are a number of strong, valuable and distinguishing features. Among these are the patent auto foot frame shift, all steel and malleable frame and steel arch, long malleable beam clamp, automatic shifting hitch and horse lift, unusually wide bearing base and adjustable jointers. For hillside or irregular fields, where it is desirable to throw earth all one way, there is no equal to the two way.

Made in two sizes:

Small size chilled 2 Horse Hitch	.	.	.	.	\$90.00
Small size combination steel 2 Horse Hitch	.	.	.	.	92.00
Large size chilled 3 Horse Hitch	.	.	.	.	93.00
Large size combination steel 3 Horse Hitch	.	.	.	.	95.00

5 % Discount for Cash

No. 821 Syracuse Plow



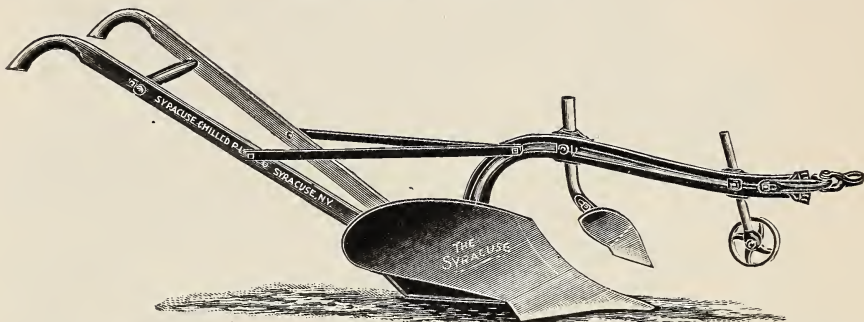
Price No. 821 chilled with wheel and jointer	.	.	.	.	\$25.50
Price No. 821 steel board with wheel and jointer	.	.	.	.	27.25
Price No. 822 chilled with wheel and jointer	.	.	.	.	24.50
Price No. 822 steel board with wheel and jointer	.	.	.	.	26.25

5% Discount for Cash

This is a truss beam plow combining lightness with strength.

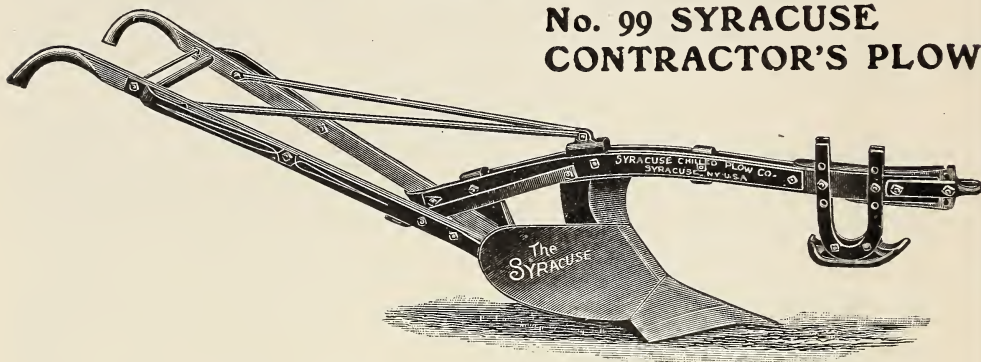
No. 32 Syracuse Plow

With Steel Beam and Steel Mouldboard.
HAS NO SUPERIOR.



Workmanship and material of the very best grade and quality obtainable. Light, yet strong and durable, with superior turning qualities. Every plow fully warranted. Complete with wheel and jointer. Price, \$23.50. No. 31, Price \$25.00. 5% discount for cash

No. 99 SYRACUSE CONTRACTOR'S PLOW



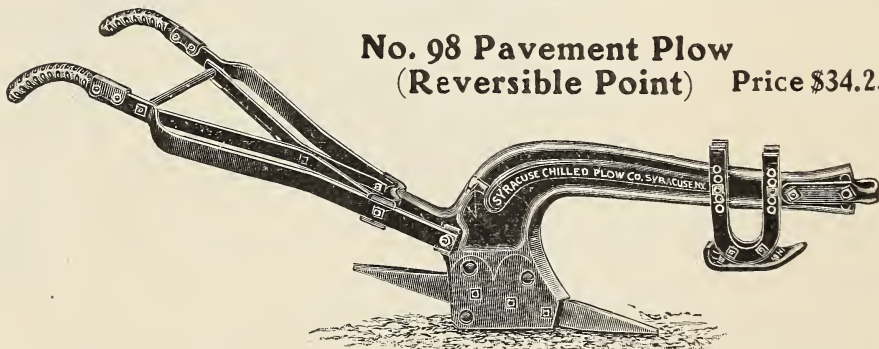
This has steel truss beam, steel mouldboard and landside, separate shin piece, heavy overlaid wrought steel share, adjustable shoe in place of wheel, loop handle wear irons, very strongly built, slight turning capacity. Suitable for severe grading purposes in shale or hard pan.

No. 99 Four to eight horses. Weight 310 lbs. Price \$47.50

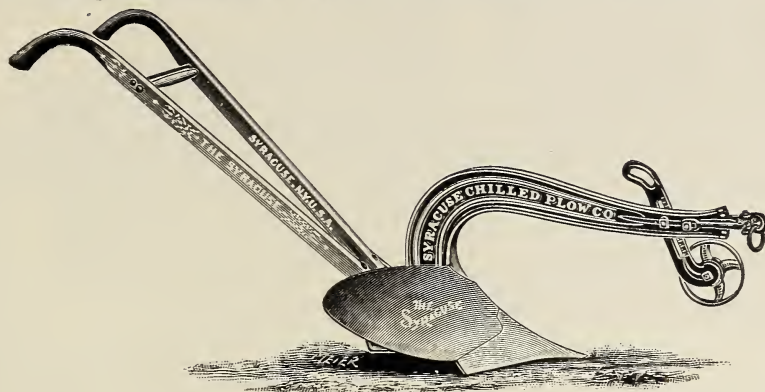
No. 1 Contractor's Plow (Chilled) 25.75

5 % discount for cash

No. 98 Pavement Plow (Reversible Point) Price \$34.25



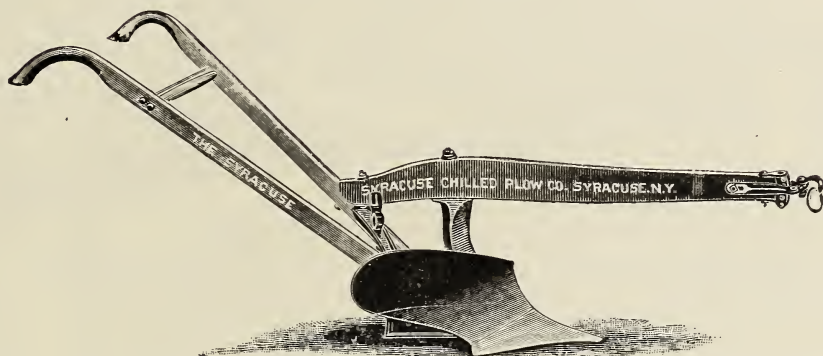
Syracuse One Horse Plows



No. 5-78 with wheel only

Price \$11.00

5% Discount for Cash



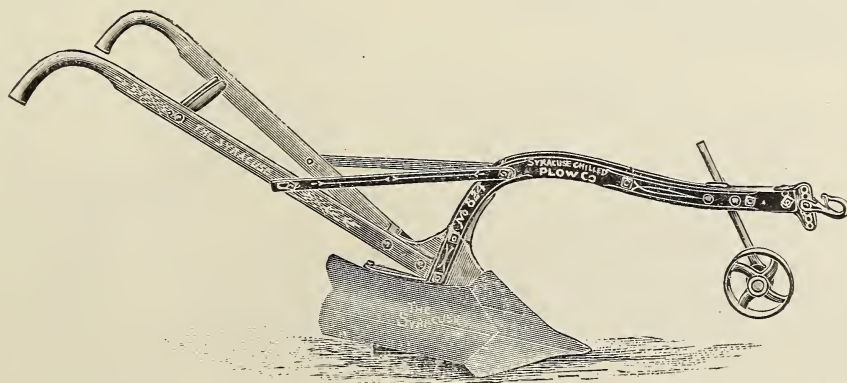
No. 52L with wheel only

Price \$14.00

No. 53L with wheel and jointer

" 19.50

5% Discount for Cash



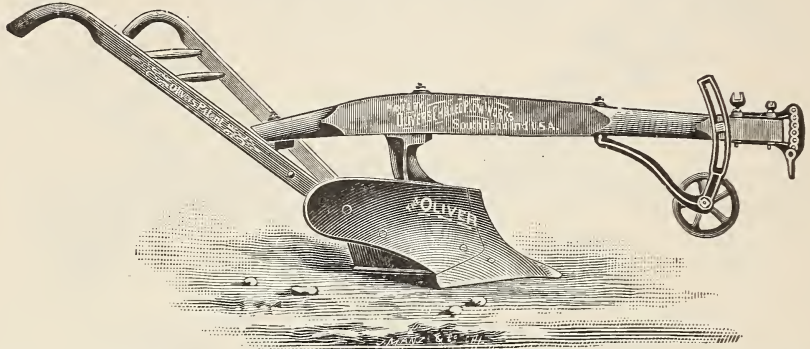
No. 823 chilled with wheel only

Price \$18.50

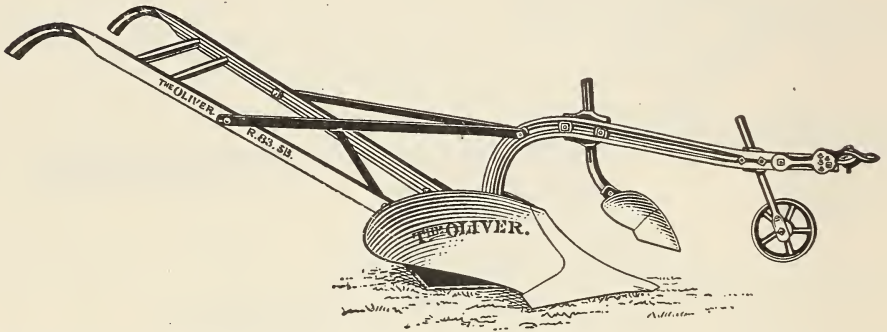
No. 824 chilled with wheel only

" 13.50

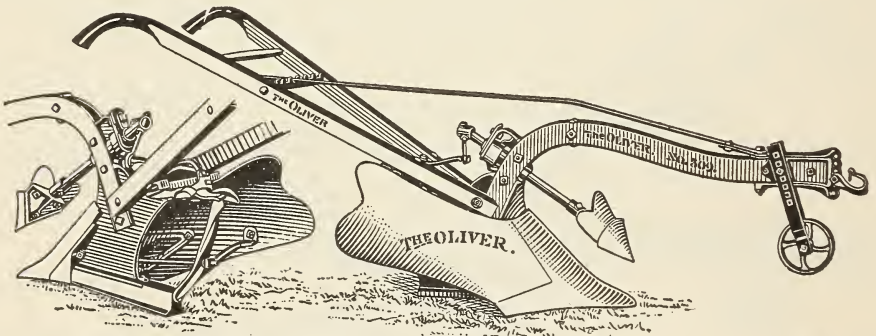
Celebrated Oliver Plows



No. E1 Oliver with wheel and jointer	.	.	.	.	Price \$25.00
No. 40 Oliver with wheel and jointer	.	.	.	.	" 25.50
5 % Discount for Cash					



No. 82 Oliver chilled with wheel and jointer	.	.	.	.	Price \$21.00
No. 83 Oliver chilled with wheel and jointer	.	.	.	.	" 22.00
5 % Discount for Cash					



No. 512 chilled with wheel and jointer	.	.	.	.	Price \$24.00
No. 513 chilled with wheel and jointer	.	.	.	.	" 25.00
5 % Discount for Cash					



1



2



3



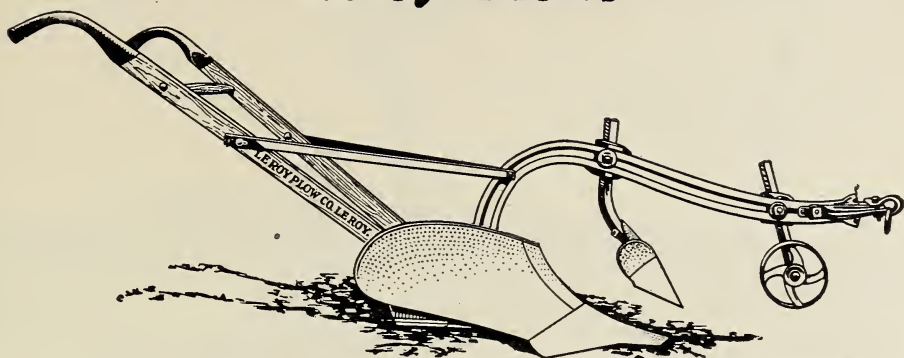
4

Views of some fine crops of Seedleaf Tobacco grown on
Olds & Whipple, Inc., fertilizers, season of 1922.

Photos taken August 15th, 1922

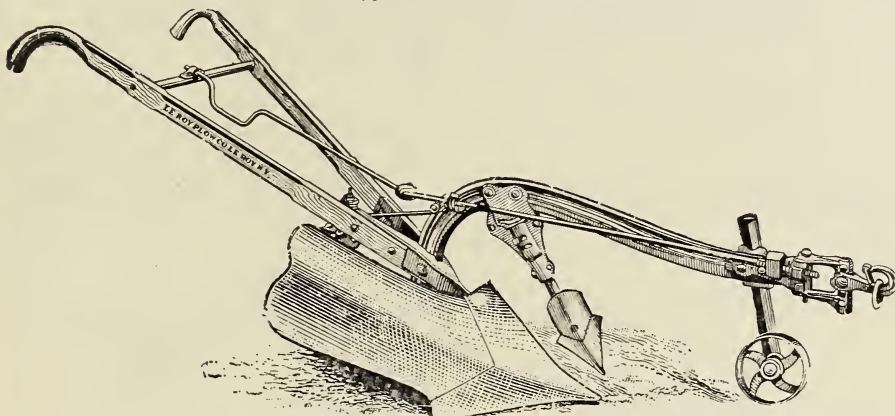
- No. 1. Farm of Wm. Stephenson, So. Glastonbury, Conn.
- No. 2. Farm of Chas. Thresher, Buckland, Conn.
- No. 3. Farm of E. E. Hilliard, Buckland, Conn.
- No. 4. Farm of Chas. Hevenor, Wapping, Conn.

Leroy Plows



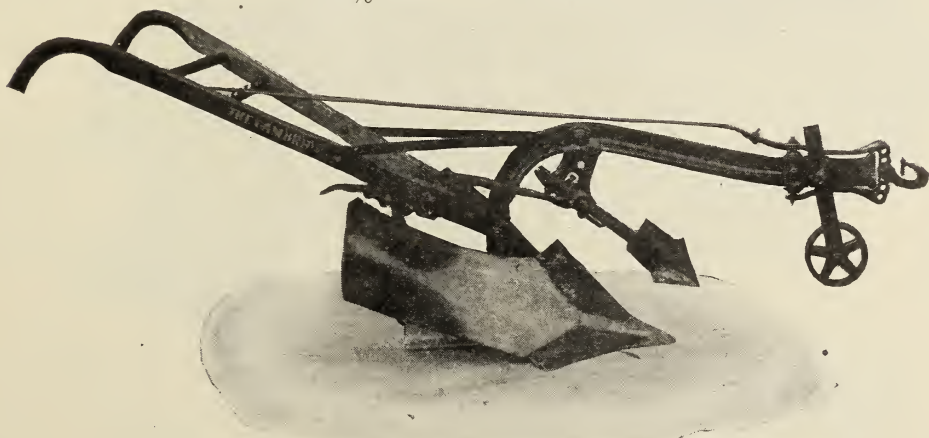
No. 109 Leroy chilled with wheel and jointer	Price \$21.75
No. 109 Leroy steel with wheel and jointer	" 23.50
No. 110 Leroy chilled with wheel and jointer	" 23.50
No. 110 Leroy steel with wheel and jointer	" 25.00

5% Discount for Cash



No. 30 Leroy steel with wheel and jointer	Price \$26.25
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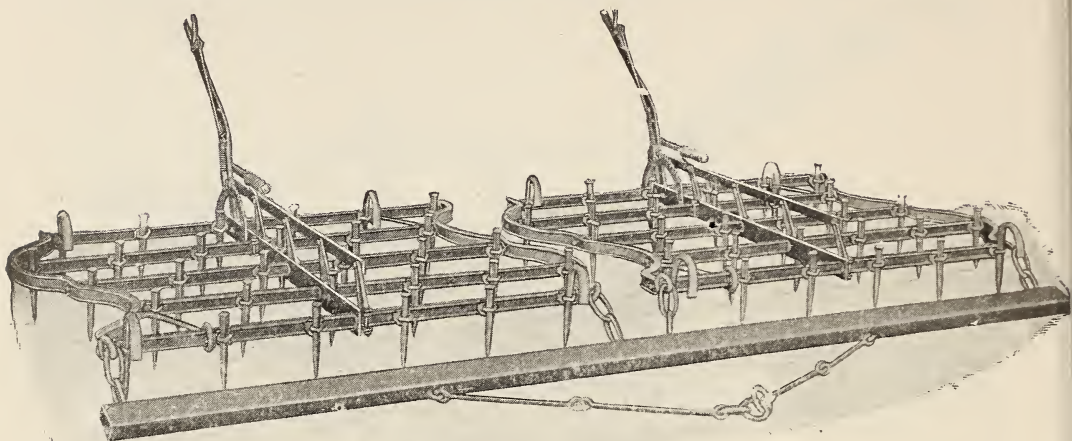
5% Discount for Cash



No. 29 Cambridge steel with wheel and jointer	Price \$26.25
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5% Discount for Cash

PEG-TOOTH LEVER HARROW

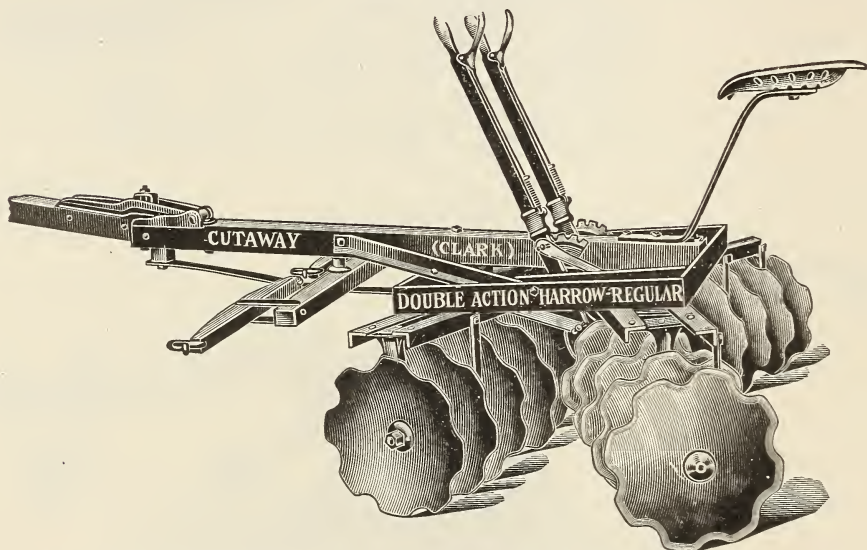


The teeth are $\frac{1}{2}$ inch extra heavy. Bars have malleable clips. Adjustable teeth.

2 Section (50 Teeth) with Spanner,	-	\$20.00
2 Section (60 Teeth) with Spanner,	-	22.00

.5% discount for Cash

CLARK'S CUTAWAY DOUBLE ACTION HARROW

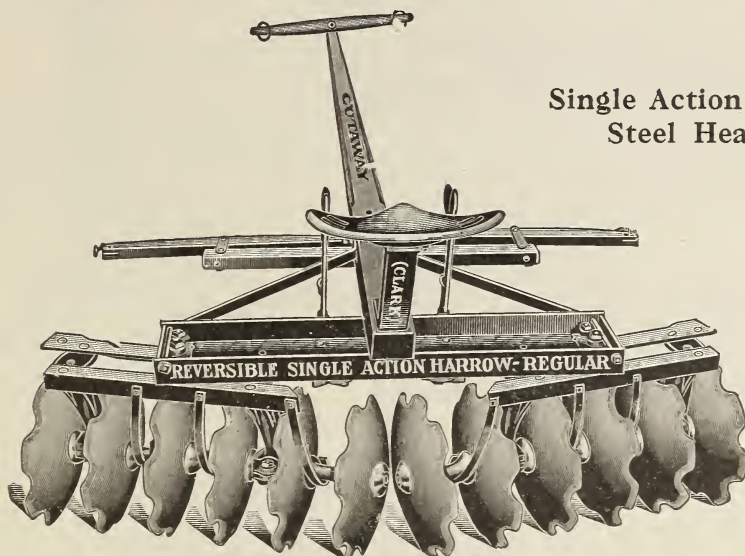


The Cutaway Double Action possesses every feature that adds efficiency, convenience or adaptability and economy to a disc harrow.

A4—Regular 16-16 inch disc	$4\frac{1}{2}$ ft. cut,	2 HH	} Prices on Application.
A5— " 20-16 " "	$5\frac{1}{2}$ " "	3 HH	
A6—Regular 24-16 inch disc	$6\frac{1}{2}$ ft. cut,	3 HH	
A6— " 24-16 " "	$6\frac{1}{2}$ " "	4 HH	

5% Discount for Cash

CLARK'S CUTAWAY HARROWS

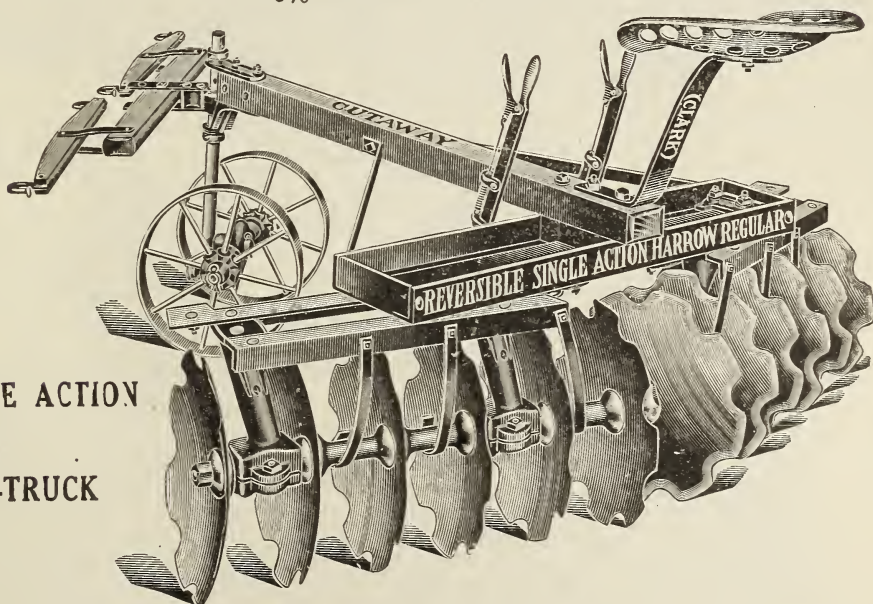


Single Action with
Steel Head

This is a standard harrow, thoroughly well made, equipped with the justly celebrated Clark hard-wood journals. These journals outwear metal, give less friction and are cheaper to replace.

Either solid or cut out discs.

A6-12—Sixteen inch cut-out discs, complete with neck yoke and eveners, \$45.00
5% discount for Cash

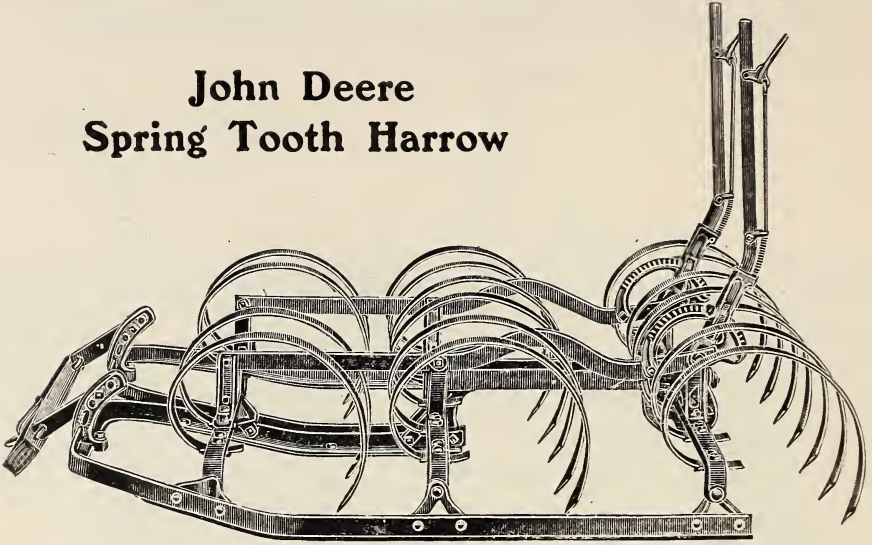


SINGLE ACTION
WITH
FORE-TRUCK

The above cut shows the Clark Cutaway Harrow equipped with tongue truck or fore carriage. This truck is all steel, durable and strong yet light; it has first, the adjustable hitch to meet the height of any team, second, adjustable tongue attachment to suit the height of any harrow; third, axle joint so that either wheel may run over clods, stones and other obstructions without affecting the even, regular draft of the harrow.

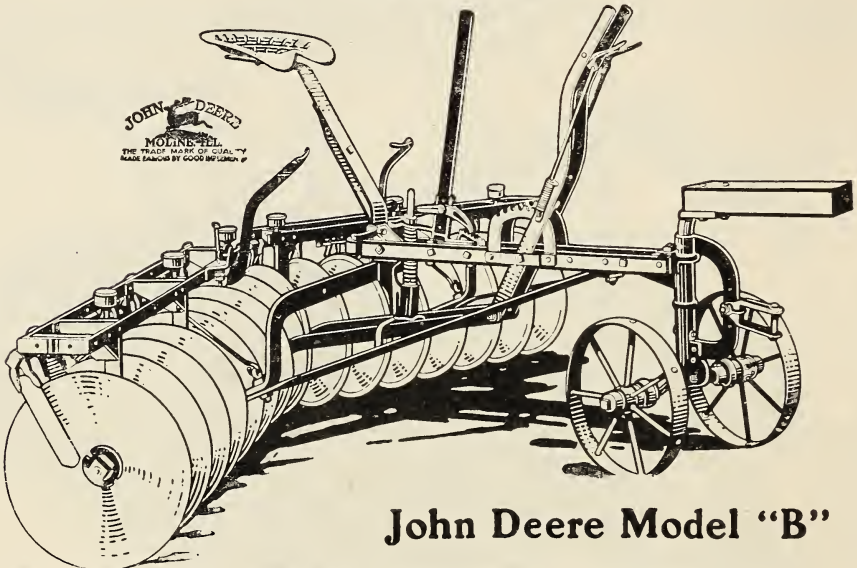
A6—Regular 12-16 inch disc, - - - Price complete, \$52.00
Fore-truck only \$9.00 5% discount for Cash

John Deere Spring Tooth Harrow



This is not a cheap tool, either in construction or price. It is for the man who wants the best and most satisfactory. The frames are of heavy channel steel, two inches wide. As the frames are carried high above the ground, they will last a lifetime.

Price for 15 Tooth	\$24.00
17 " "	26.00
17 " Riding Harrow with wheels and seat	32.50
5% Discount for Cash	



John Deere Model "B"

The John Deere Model "B" is a superior machine because of its flexibility—an important principle of construction that places it in a class by itself.

A third lever with an unusually powerful spring and a pivoted yoke enables the driver to give light or heavy pressure at inner ends of the gangs so as either to cut out dead furrows or to cultivate over ridges or back furrows without burying the harrow in the center.

Each gang of the Model "B" works independently—only the part passing over an obstruction is raised out of the ground. With a rigid harrow, the entire machine is lifted out and considerable ground left unworked. In other words, the Model "B" can readily be regulated to penetrate at even depth its entire width, and the pressure spring holds the gangs to the uneven surface of the ground at all times.

Double-angling levers give perfect control of the entire machine. When working on hillsides, this harrow does not crowd towards the bottom, as the lower gang can be given a greater relative angle.

The Model "B" Has Extra Strength Without Unusual Weight

-1 6 With pole 2 Horse Hitch	-	-	-	\$48.00
-16 With Fore-Truck	-	-	-	54.00
Fore-Truck only	-	-	-	9.00

5 % Discount for Cash

ACME

Pulverizing Harrows

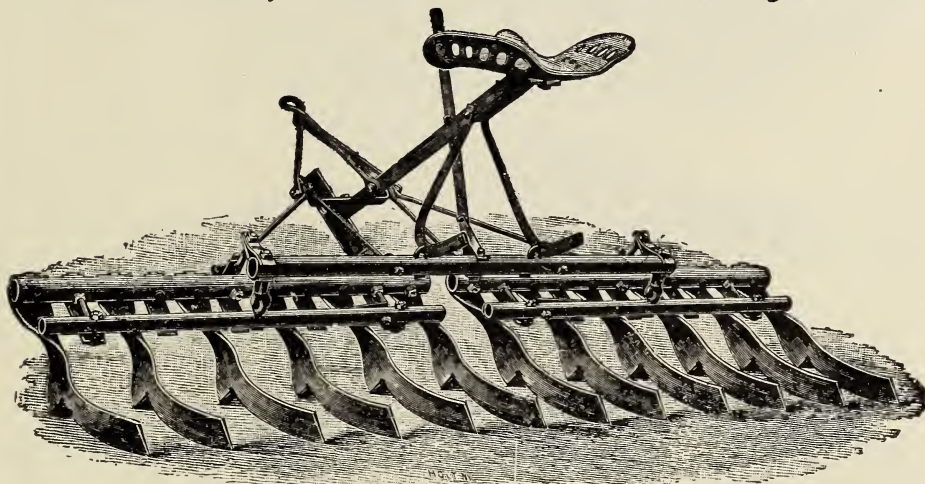
Warranty. I hereby warrant each and every part of each and every "Acme" Pulverizing Harrow against breakage for the term of one season after it leaves the manufactory or any of my storehouses, and I hereby authorize Agents and Dealers to FURNISH FREE NEW PARTS TO REPLACE BROKEN PARTS; the only stipulation being, that the farmer demanding such parts shall sign a statement that the breakage occurred in fair usage, which statement shall be countersigned by the Agent or Dealer from whom the Harrow was purchased.

DUANE H. NASH, Manufacturer.

No. 23.

*Two-Horse Size.
Works 6½ ft. Wide.*

*Riding Harrow.
Flexible Style.*



The gang bars may be made rigid, when desired by means of braces provided for that purpose.

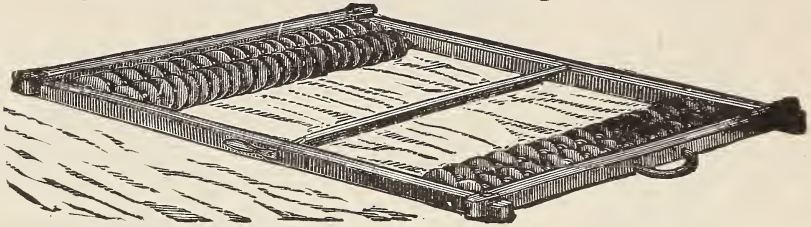
Price of No. 23, (two-horse style)	\$25.00
" " H, (one-horse style)	17.50

5% Discount for Cash



One of the finest tobacco crops in the Connecticut Valley on Farm of Richard Robertson Weatogue. Grown on Olds & Whipple Fertilizer.

The Meeker Smoothing Harrow

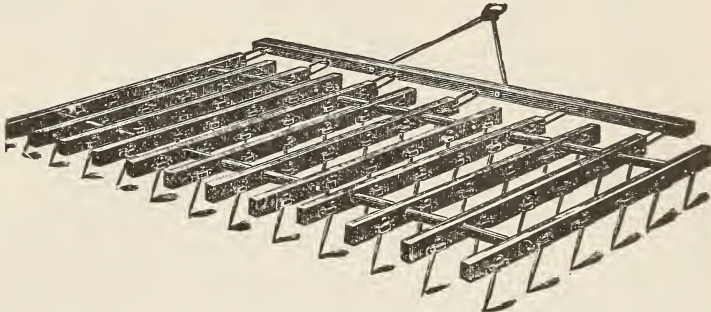


A perfect harrow and land roller combined. This harrow has become a great favorite among all classes of farmers and market gardeners.

It has four (4) sets of rollers containing 58 steel discs. These discs grind all lumps and save the work of raking and also mash small stones below the surface better than any field roller, leaving the land smooth and level.

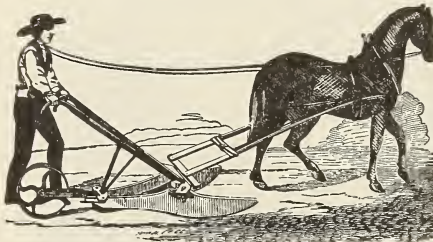
8 in. disc Harrow \$32.00. 10 in. disc Harrow \$37.00. 5% discount for cash.

Clipper Smoothing Harrow



The teeth are $\frac{9}{16}$ in. round, and are attached to bars by malleable clasp, and are so arranged that by hitching to one end of harrow the teeth pull slanting as shown in cut, by hitching to other end the teeth pull straight. Wood frame.

Price 1 section	\$10.00	} 5% discount for cash
" 2 " (including spanner)	21.00	
" 3 " "	31.50	



Goslee's Potato Coverer and Tobacco Ridger

Price, Plain \$16.50

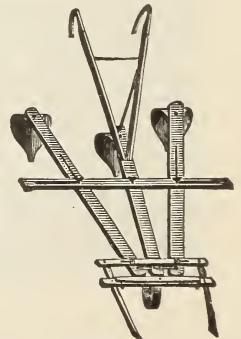
5% discount for cash.

Goslee Improved Field Marker

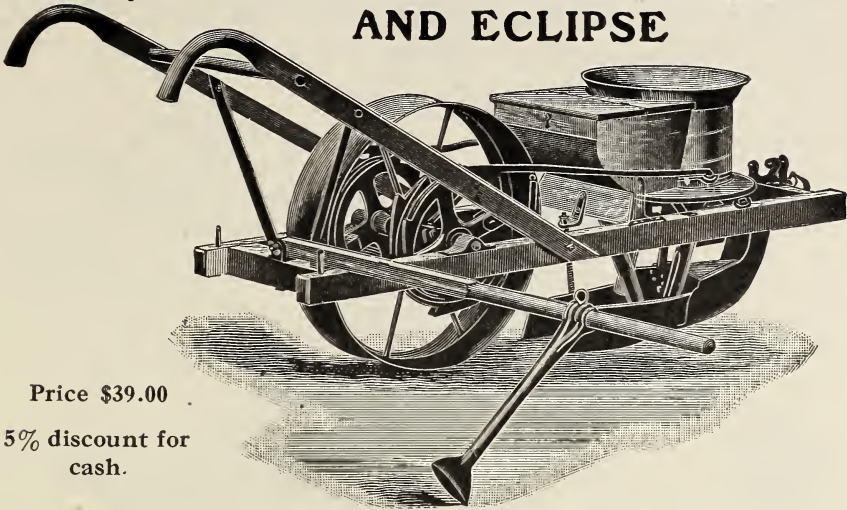
(Spread 2 to 4 feet)

This machine is designed to mark out rows any width for any crops grown in rows. Teeth are adjustable to any size and depth drill.

Price, \$14.50 5% discount for cash.



"KING OF THE CORNFIELD" AND ECLIPSE



Price \$39.00

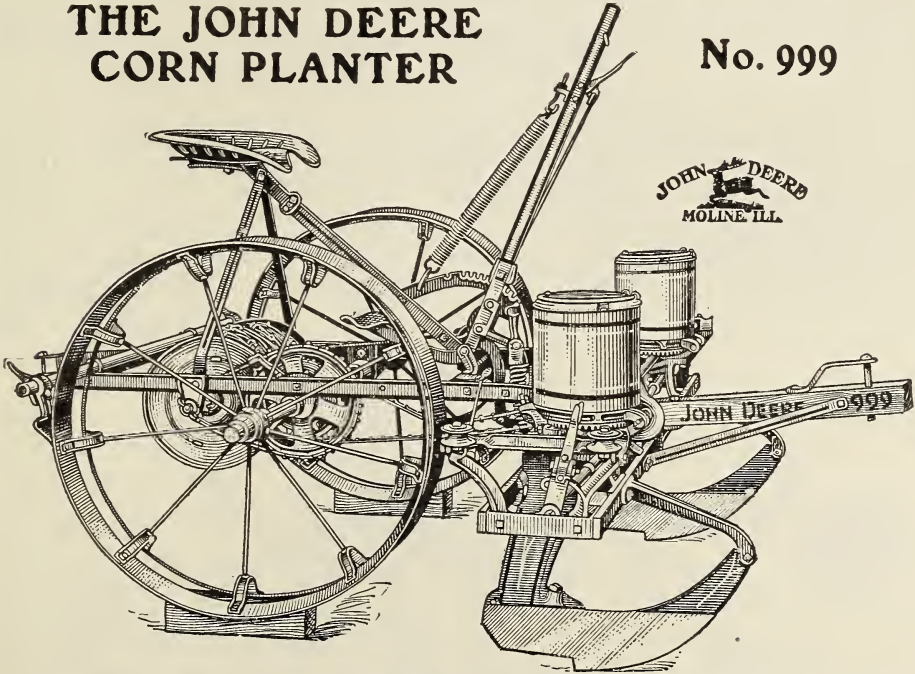
5% discount for
cash.

Corn, Bean and Pea Planter and Fertilizer Distributor

Every machine is warranted to be well made of good material, and guaranteed to do its work perfectly and satisfactorily with the different kinds of seeds, as we claim, if used according to directions.

THE JOHN DEERE CORN PLANTER

No. 999



Here is a point we want you to think over: If a planter misses only fifteen kernels in every 100 hills, there is a loss of five bushels per acre in the yield.

The accurate planter prevents that loss—it proves to be one of your best friends because it does faithful work in producing bigger yields.

We want to show you the John Deere No. 999 Corn Planter.

You can plant two, three or four kernels without changing seed plates or stopping the team. You can change from hilling to drilling instantly. You get nine different drilling distances without changing the plates.

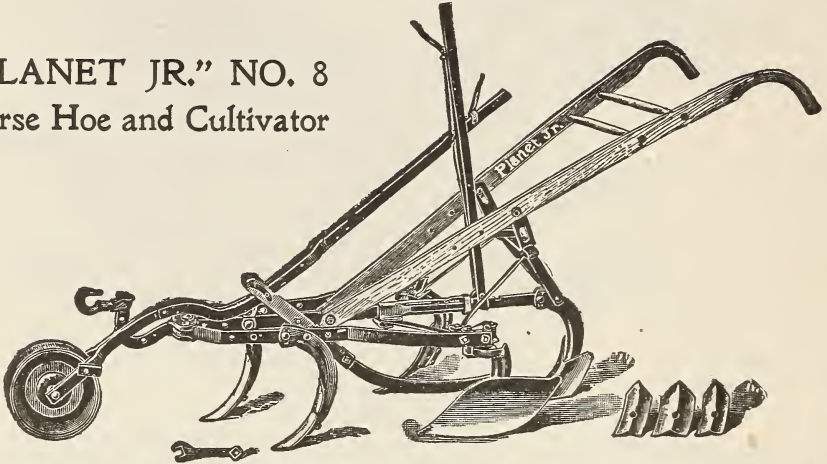
Price plain less check row and fertilizer attach.	.	.	.	\$68.00
Price with fertilizer attach. less check row	.	.	.	89.00
Price with fertilizer attach. and check row	.	.	.	97.00
Automatic hilling attach.	.	.	.	3.00

5%
Discount
for cash

THE "PLANET JR" HORSE TOOLS

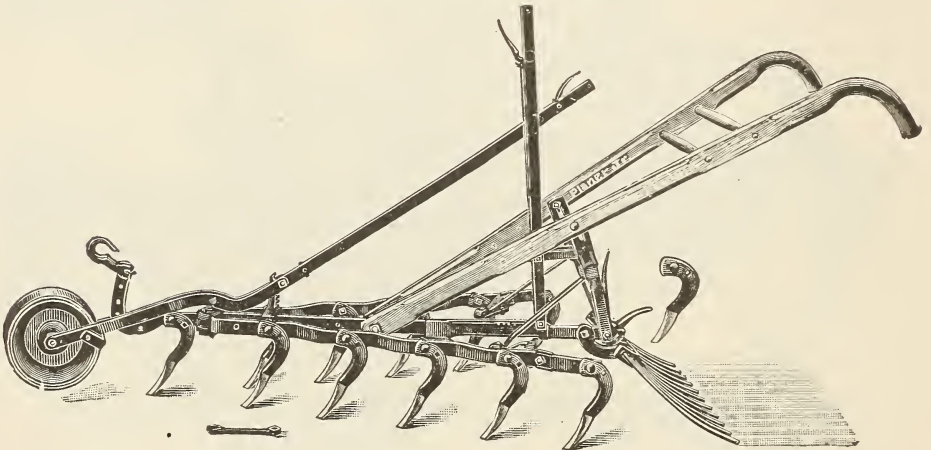
Complete Descriptive Catalogue Sent on Application

"PLANET JR." NO. 8 Horse Hoe and Cultivator



- | | |
|--|----------------|
| No. 8—With Depth Regulator, Lever, Steel Wheel and Lever Expander, - | Price, \$17.50 |
| No. 7—Same as No. 8, except it has no Depth Regulator, - - - | Price, 16.75 |
| No. 9—This tool is identical with the No. 7 Horse Hoe, but it has a | |
| plain wheel instead of one operating by a convenient lever, - - - | Price, 15.50 |
| No. 82—7 Tooth Horse Hoe and Cultivator Combined - - - | Price, 17.00 |
- 5% discount for cash.

The "PLANET JR." Twelve Tooth Harrow, Cultivator and Pulverizer



The above is a great labor saving tool. Try one and be convinced of its superior qualities. No farmer should be without one.

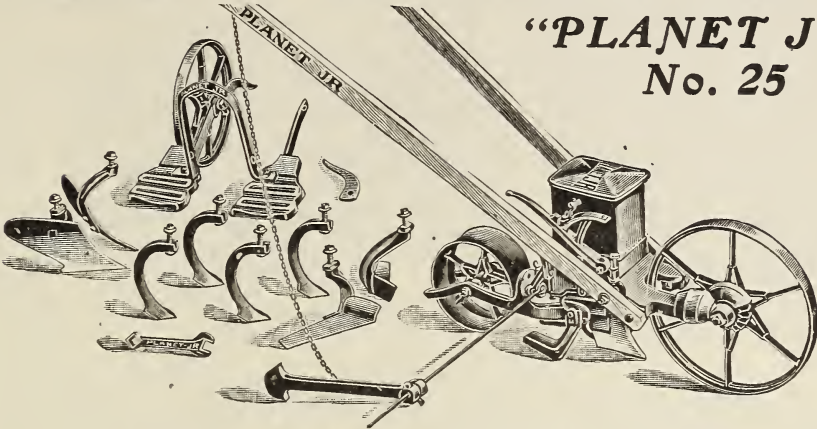
Price, plain, \$11.50

With Wheel, \$14.75

Complete, \$17.50

5% discount for cash.

We sell as an extra an eighteen and twenty-four inch Sweep, with special standard which is used in place of the pulverizer for leveling and weed cutting. It is adjustable in height. Furnished in place of pulverizer if desired.

"Planet Jr." Farm and Garden Tools**"PLANET Jr."
No. 25****Hill and Drill Seeder and Double Wheel Hoe.**

Price, \$22.00. 5% discount for cash.

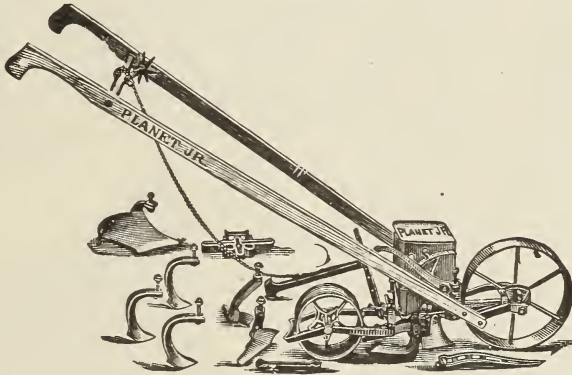
"PLANET JR." No. 4

Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow.

PRICE, complete, - - \$18.00
" as a drill only, - 14.50

5% discount for cash.

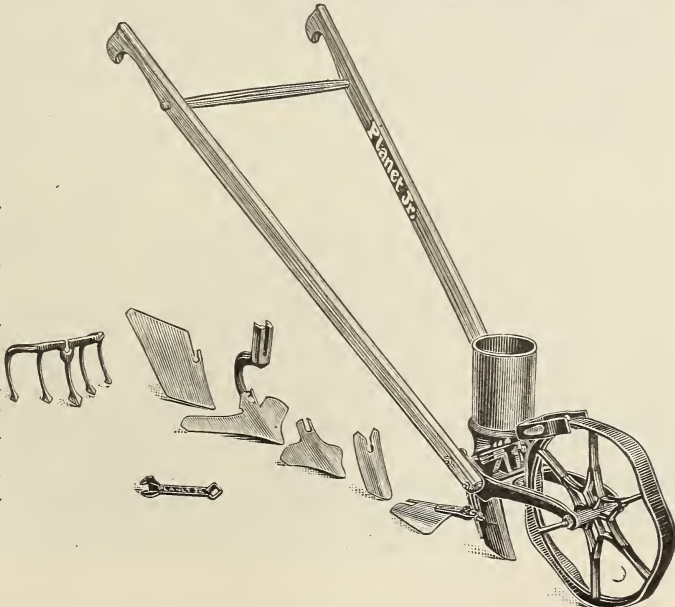
This is a prime favorite with all gardeners, especially those who while not having a large acreage, derive a lot of pleasure in using a Combined Seeder and Cultivator of this kind in caring for the home garden.

**"PLANET JR."
No. 31**

Combined Drill Seeder and Wheel Hoe.
Price \$12.50 complete.
Price as a Drill Seeder only, \$10.00 (No. 31D).
Price as a Wheel Hoe only, \$6.00 (No. 33).

This is a thoroughly well made machine, and will sow even a small packet of any garden seed at any thickness desired with the greatest precision from $\frac{1}{4}$ to 2 inches deep.

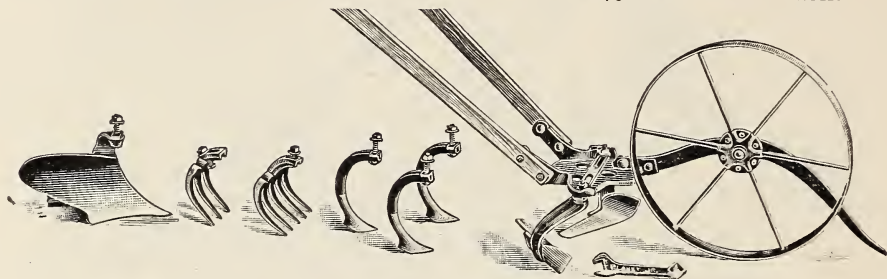
5% discount for cash.



"PLANET JR." NO. 16 Single Wheel Hoe, Cultivator,
Rake and Plow

Price \$9.25

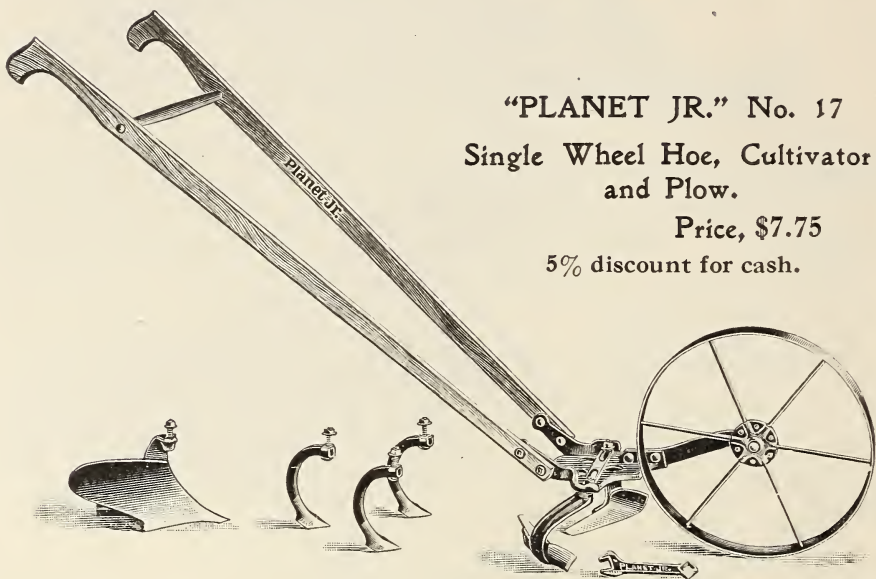
5% discount for cash.



"PLANET JR." No. 17
Single Wheel Hoe, Cultivator
and Plow.

Price, \$7.75

5% discount for cash.



No. 17½ "PLANET JR." Single Wheel Hoe
(Same as No. 17 less Plow)

Equipment:

1 pair six-inch hoes	} all steel tempered
3 steel cultivator teeth	
1 leaf lifter	

PRICE, \$7.00. 5% discount for cash.

No. 18 "PLANET JR." Single Wheel Hoe

Equipment:

One pair six-inch hoes, oil tempered

PRICE, \$5.75 5% discount for cash.



1



2



3



4

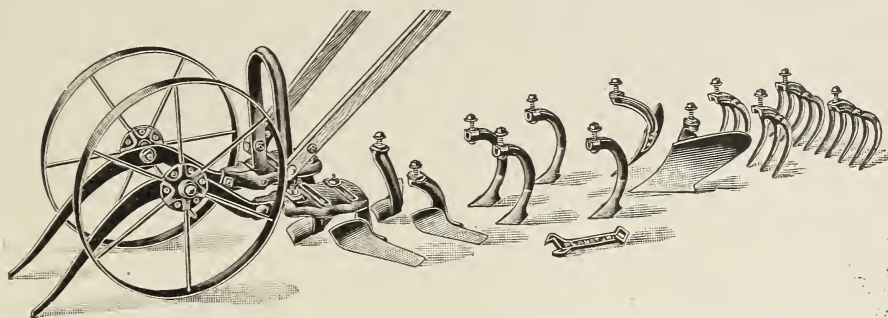
Fine crops of Tobacco grown on our fertilizers, season 1922.

- No. 1. Farm of Ralph A. Tryon, So. Glastonbury, Conn. 25 Acres.
- No. 2. Farm of Henry P. Smith, Glastonbury, Conn.
- No. 3. Farm of Leslie Newberry, So. Windsor, Ct., 30 acres Seedleaf.
- No. 4. Farm of Donald Grant, Buckland, Conn.

**THE "PLANET JR." No. 11 Double Wheel Hoe, Cultivator,
Rake and Plow.**

Price \$14.75

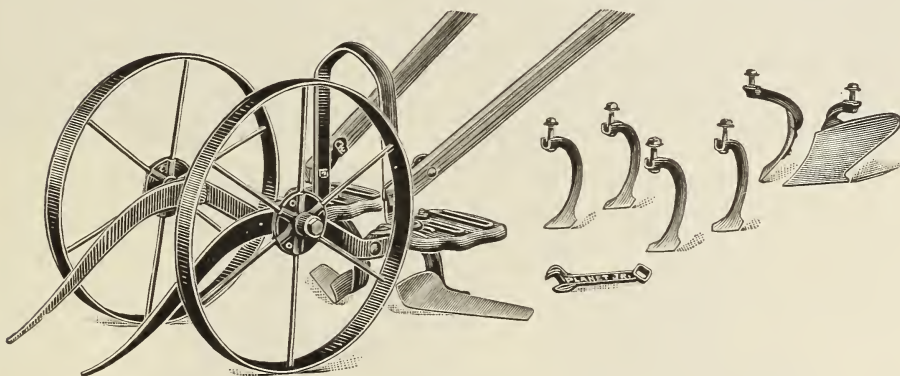
5% discount for cash.



**THE "PLANET JR." No. 12 Double Wheel Hoe, Cultivator
and Plow.**

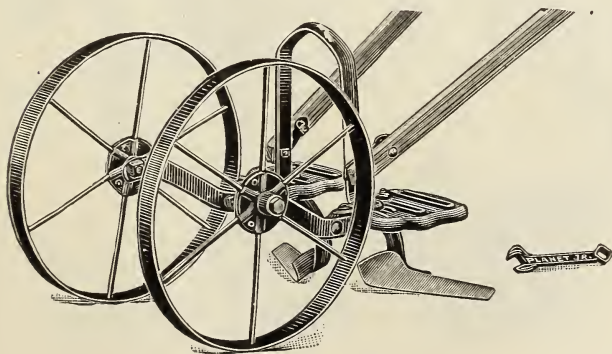
Price \$11.50

5% discount for cash.



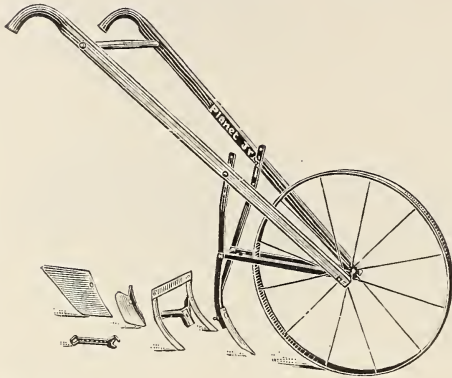
The "PLANET JR." No. 13 Double Wheel Hoe. Price \$8.25

5% discount for cash.



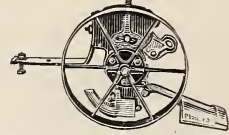
Send for
Special Catalogue
"Planet Jr." Tools

No. 119 Garden Plow and Cultivator



24 in. Wheel Price \$5.00

5% Discount for Cash



No. 35 Seeder Attachment
for Planet Jr. Single and
Double Wheel Hoes

Price \$6.50

5% Discount for Cash

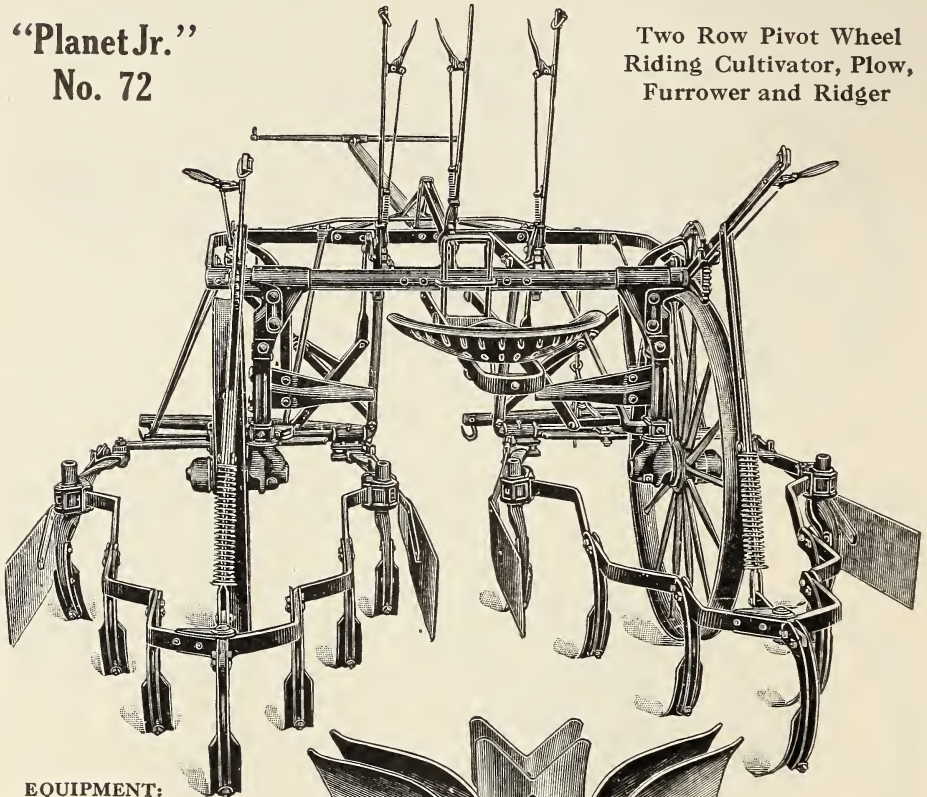


Grass Edger

Price - - - \$1.75 Net

"Planet Jr."
No. 72

Two Row Pivot Wheel
Riding Cultivator, Plow,
Furrower and Ridger



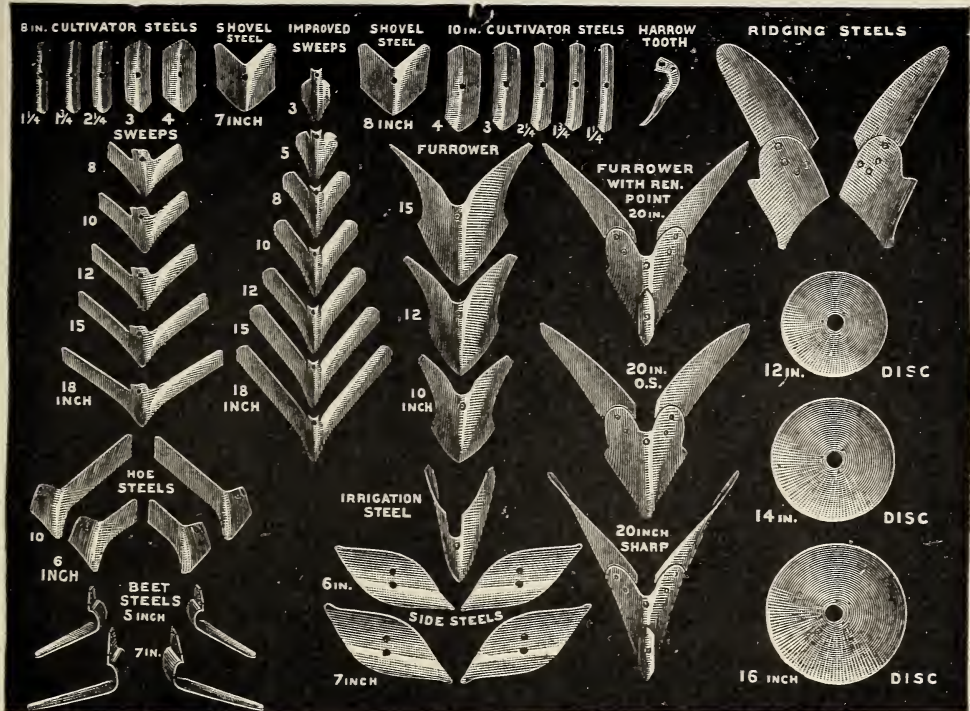
EQUIPMENT:

- 14 Cultivator Teeth
- 4 Reversible Plows
- 2 8 inch Shovels
- 4 Plant Guards

Price Complete
\$115.00

5% discount
for cash

"PLANET JR"



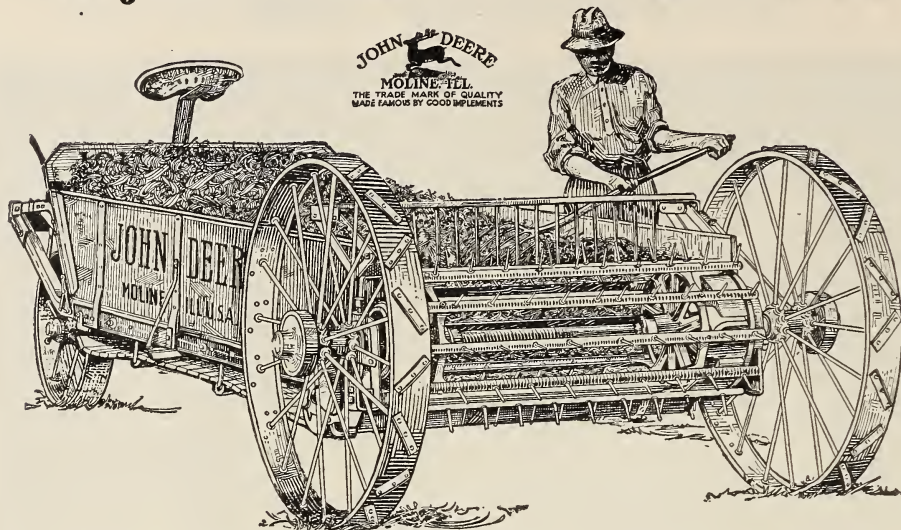
Varieties of Steel Plates made for the "Planet Jr." Horse Hoe.

The 1 $\frac{1}{4}$ inch steels throw almost no furrow, and run very deep, yet work beautifully as cultivating teeth and subsoilers, very desirable where the soil is to be broken up thoroughly without hilling, as where the ground is clean, but beaten down by rains, or baked by the sun. The next two sizes, 1 $\frac{3}{4}$ and 2 $\frac{1}{4}$ inch, are desirable for general cultivation, and do superior work in hard lands. The next is 3 inch; this is the size, with one 4 inch for the rear standard, which is sent out with the Horse Hoe, unless otherwise ordered, being best adapted to general work in all kinds of soil.

1 $\frac{1}{4}$ inch Steels,	\$0.16	12 inch Improved Sweeps,	\$0.72
1 $\frac{3}{4}$ " " . . . . .	.18	15 " " " . . . . .	.82
2 $\frac{1}{4}$ " " . . . . .	.21	18 " " "	1.00
3 " " . . . . .	.24	24 " " "	2.25
4 " " . . . . .	.28	Fingered Sweep and Bolt,	1.25
7 " Shovel Steel, . . . . .	.35	6 inch Side Steels, each, . . . . .	.70
8 " " " . . . . .	.40	6 " Hoe Steels, . . . . .	.65
Bolts, . . . . .	.05	10 " " " . . . . .	.75
8 inch Sweep (regular) . . . . .	.40	10 " Furrower,	1.10
10 " " " . . . . .	.46	12 " " "	1.30
12 " " " . . . . .	.52	15 " " "	1.70
15 " " " . . . . .	.64	20 " Furrower, old Style, with wings	2.75
18 " " " . . . . .	.80	20 " Furrower, new style	3.00
24 " " "	2.00	Pulverizer for Harrow Special,	3.25
8 inch Improved Sweeps, . . . . .	.54		
10 " " " . . . . .	.62		

Improved Sweeps do not fit Horse Hoe Side Standards.

THE JOHN DEERE MANURE SPREADER



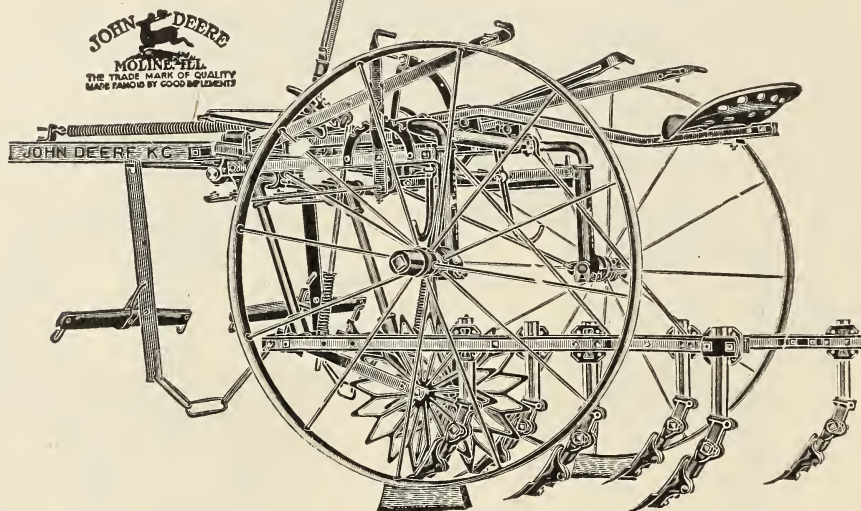
The low down Spreader only 36 inches from the ground to top of the box making it very easy to load. The beater is made entirely of steel and is mounted on the axle doing away with unnecessary chains and gears. An endless apron with patented apron drive prevents racing of the apron under all conditions. It is very simple to operate, has only two levers and turns in its own length.

Size "B" 40 Bushel, Price \$170.00. Size "A" 30 Bushel, Price \$165.00. 5% discount for cash.

We also sell BATEMAN CO., Inc. SPREADER

CH1, 40 Bushel	-	-	-	-	-	-	-	Price \$170.00
CH2, 50 Bushel	-	-	-	-	-	-	-	" 175.00

5% Discount for Cash



The value of any cultivator to you is measured by its dependability for thorough work and by the time and labor it saves you in doing that work.

The John Deere KC Cultivator has established, in actual use, a reputation for giving extra value to the user because of its features that make thorough work easier and faster.

The perfect system of lever control enables the operator quickly, easily and accurately to adjust the cultivator for thorough cultivation under all field conditions.

JOHN DEERE KC156, 8 Shovel, Spring Trip	-	-	-	Price \$60.00
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5% Discount for Cash



The Iron Age

(Improved Robbins)

Potato Planter

Price \$135.00

No. 400R. with regular
Fertilizer Distributor
and Shield Plow

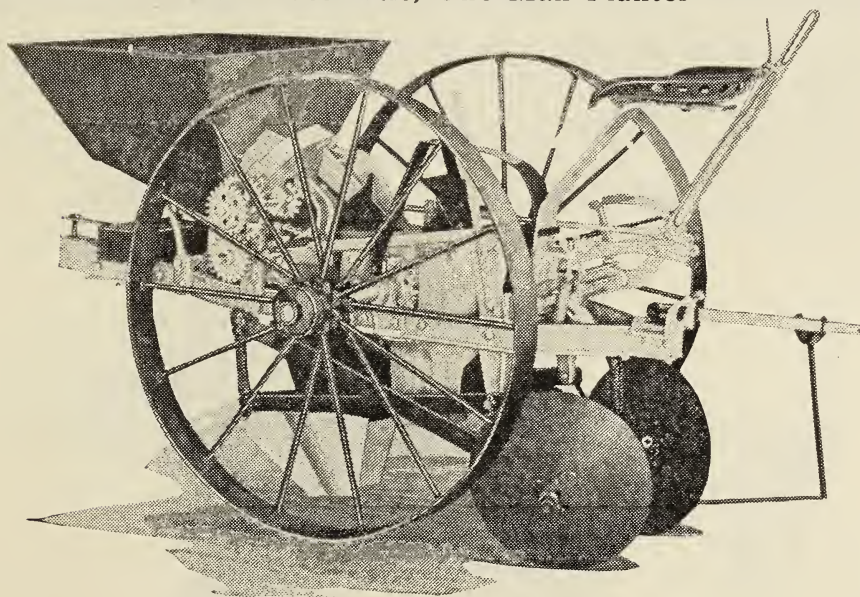
5% Discount for Cash

A Planter that does not injure the seed as it is all handled automatically.

A Planter that places every seed piece exactly as you want it. A Planter that sows fertilizers at the same time, but none of it where it touches the seed.

The Hoover No. 400 Visible Potato Planter

Is an Automatic, One Man Planter



This planter was designed to meet the general demand for a strictly high-grade, up-to-date potato planter, one that would be just as satisfactory for planting potatoes as the "Hoover" Potato Digger has proved for digging them.

The fertilizer attachment is designed to meet the varied requirements of potato growers, as it will put the fertilizer either below or above the seed, as the operator desires.

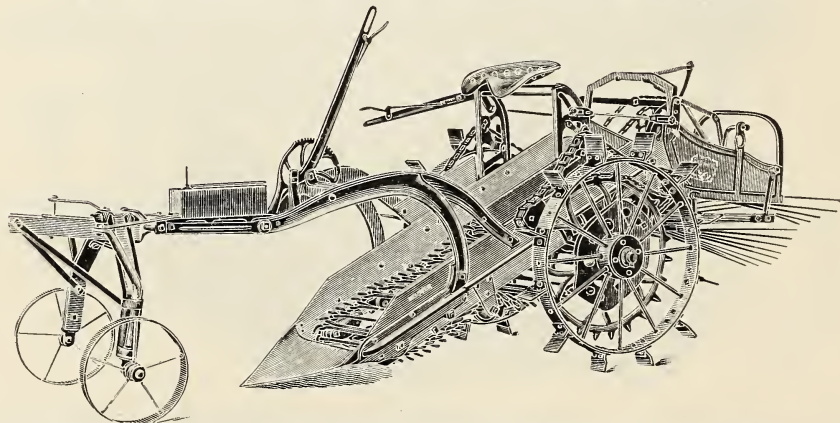
Price Complete, with Fertilizer Attachment, \$128.00

5% discount for cash



You cannot raise potatoes successfully unless you spray				Price
No. 354S	4 row 55 gal. tank, duplex pump, plain nozzle (as shown above)			\$183.00
No. 354SL	4 row 55 gal. tank, duplex pump, drop nozzle	.	.	190.00
No. 357L	4 row 100 gal. tank, triplex pump, drop nozzle	.	.	240.00
No. 357	6 row 100 gal. tank, triplex pump, plain nozzle	.	.	240.00
5% Discount for Cash				

THE HOOVER POTATO DIGGER



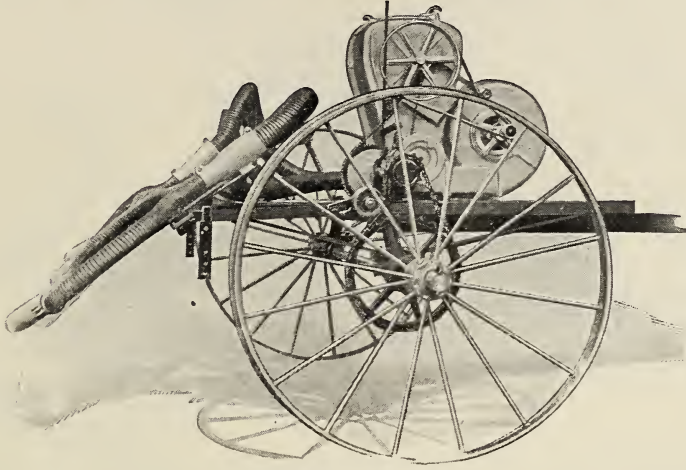
This Potato Digger has become the standard of excellence everywhere. It is now used more largely in the potato growing section of Maine than any other make.

It separates the potatoes from the vines and weeds leaving them in a clean narrow row. Two horses will handle the machine under ordinary conditions. It is a great labor saver.

No. 330, Price \$130.00

Less 5% for cash

NIAGARA DUSTERS



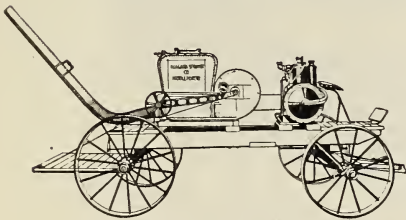
Niagara Potato Duster

Model C-23-P is traction operated, a sprocket chain from axle runs fan and feed gears, because horse drawn and operated, a bigger fan with 8" blade revolving 1200 times a minute is used. Hopper holds 80 lbs. Dusts 20 acres of potatoes a day.

Price \$285.00

5% discount for cash

NIAGARA ORCHARD DUSTERS



NIAGARA ORCHARD DUSTER

5-h.p. water cooled motor, and special orchard wagon. Sold separately. Aluminum Dust machine, highest development by pioneer duster makers. Fitted with patented flexible metal hose. Weighs 1,000 lbs., complete. Crop attachment for dusting potatoes, etc., can be supplied.

Model F 23 power orchard
duster \$145.00

5 H. P. Corliss Engine . . . 200.00

Orchard Wagon 70.00

We will allow a 5% cash discount
on outfit if purchased complete.

NIAGARA BLOWER GUN

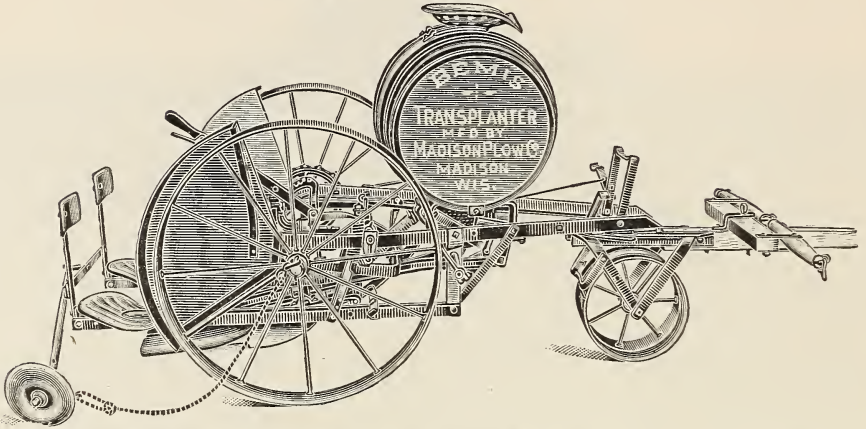


Price \$18.00 net

Plunger dust gun garden outfit \$1.50 net.

The Bemis Transplanter

For Setting Tobacco and Other Plants

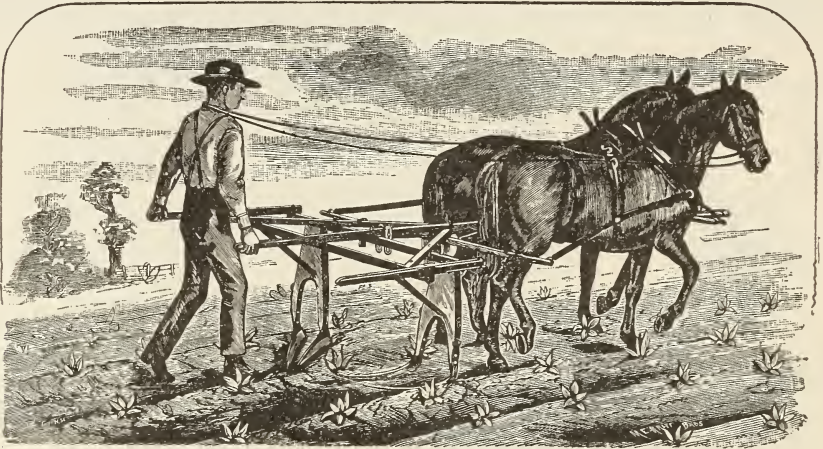


The above is the well known Bemis Transplanter made by Madison Plow Co. of Madison, Wis., with all improvements to date.

This machine is too well known to need any endorsement from us. Nearly every tobacco farm in the Connecticut Valley is equipped with one of these implements.

Price \$91.50. 5% discount for cash. Equipped with Double Truck \$1.50 Extra

Prout's Hoeing Machine



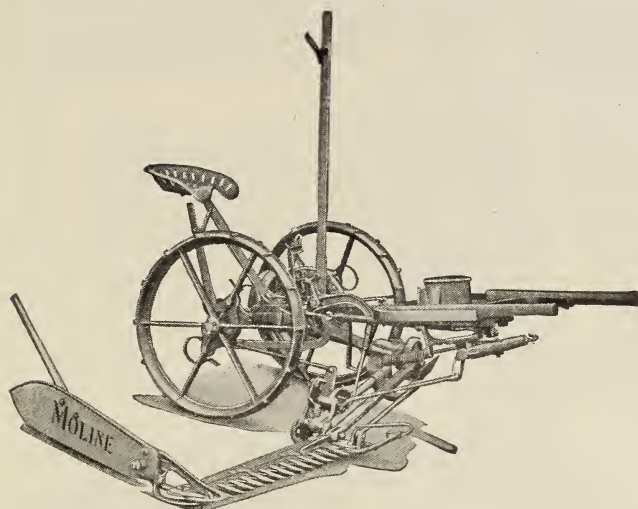
Unlike the Cultivators and Horse Hoes now in common use the whole surface or distance of 2 ft. more or less, on each side of plant is cut over with this machine, all the weeds are removed. The hoe steels being made tapering permit of cutting close up to plant without injury to the roots.

Price, plain \$29.00

Price, with wheels \$32.00

5% discount for cash.

Use O. & W.'s Special Tobacco Fertilizer.



Try A New York Moline Buckeye Mower

The best method of draft for a mower ever invented is the Moline "Spring Draft."

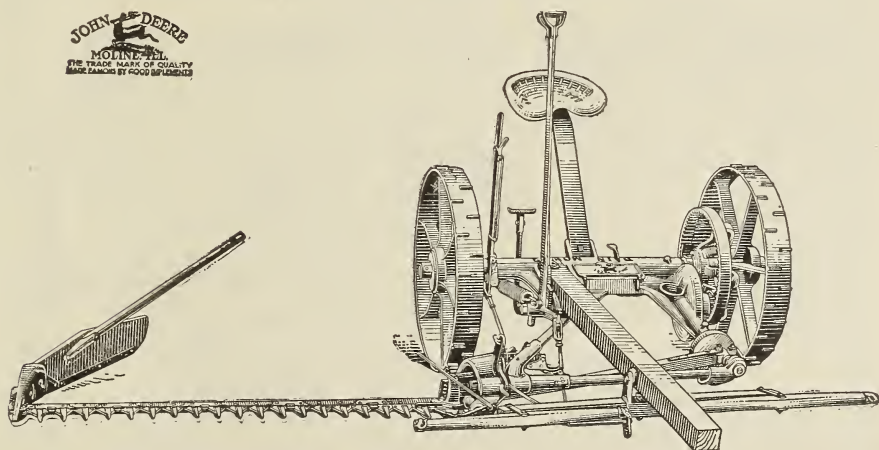
In all work it produces more uniform and *lighter* average draft, and secures other even more important advantages.

We have them from 3½ ft. to 6 ft. size. Get Special Circular on these.

5 ft. size, Price \$79.00

Less 5% discount for cash

The John Deere Mower



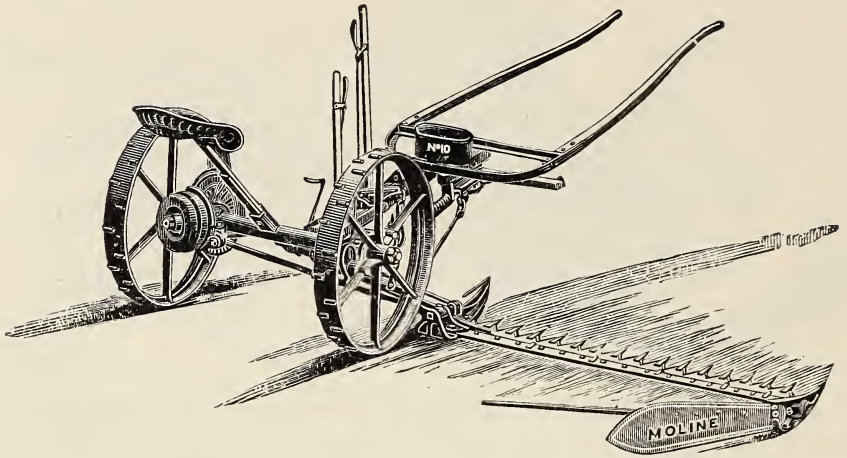
This mower is noted for its strength, durability, light draft, ease of management and superior cutting power. Frame is one piece of iron—all parts are held securely. Compensating gears remove strain from bearings and transmit instead of consume power. All levers are easy to operate, and a boy can readily handle them. The knives can be closely and accurately adjusted to center in their guards, doing away with knife breakage and making easy cutting.

5 Foot High Lift

\$80.00

No. 10 Moline One Horse Mower

Cuts 3½ Feet

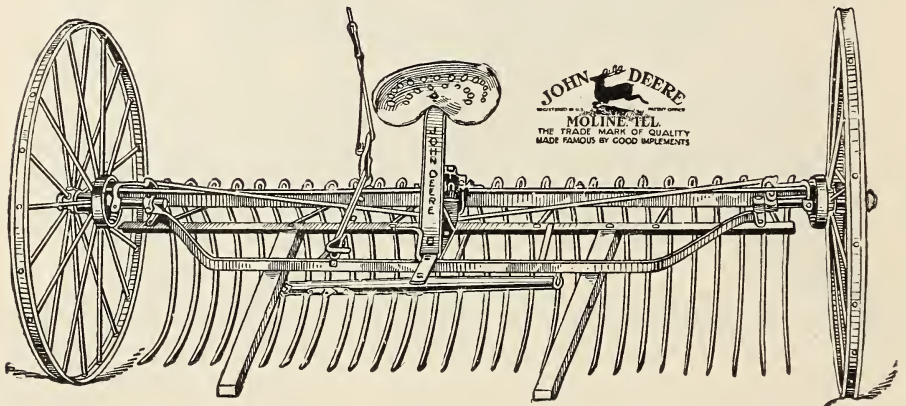


We have sold these mowers for 30 years. Easy draft, easy to operate, none better.

Price - - - - - \$76.00

5% Discount for Cash

JOHN DEERE STEEL SULKY RAKE



Designed and constructed to do every class of work required of a Sulky Rake in an efficient and satisfactory manner. This rake is simple, strong and durable. By making the principal working parts reversible, the life of a John Deere rake is practically double that of the ordinary.

8 Foot 26 Tooth . Price \$40.00

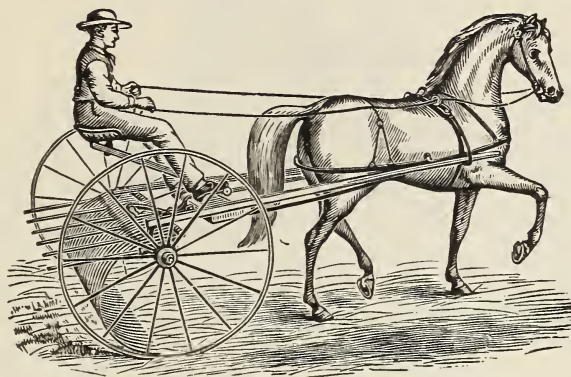
Less 5% discount for cash



Fine crops grown on our fertilizers, season 1922.

- No. 1. Farm of Herbert T. Clark, So. Glastonbury, Conn.
- No. 2. Farm of Mike Rukas, Buckland, Conn.
- No. 3. Farm of Wm. K. Ackley, East Hartford, Conn.
- No. 4. Stephenson Farm, So. Glastonbury, Conn.

WOOD HAY RAKES



Wiard Rake, 8 ft.	-	-	-	-	-	-	\$38.00
New York Champion, 8 ft.	-	-	-	-	-	-	40.00
Yankee, 8 ft.	-	-	-	-	-	-	42.00

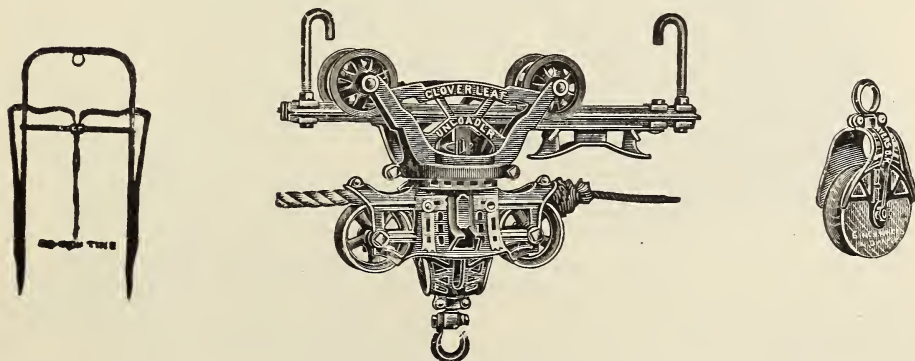
5% Discount for Cash

The Myers Clover-Leaf Unloader

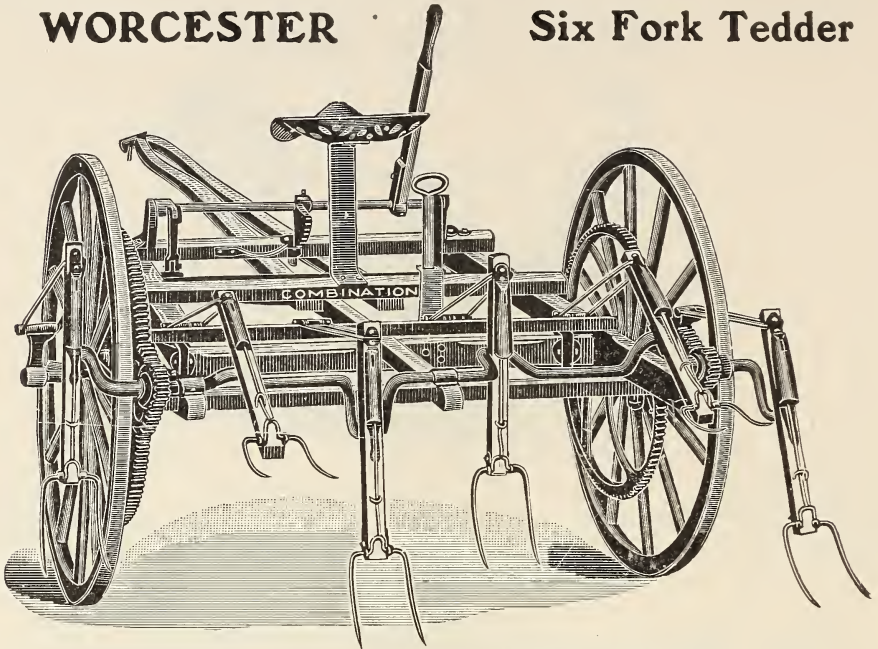
PRICES

Clover Leaf Hay Unloader No. 114	\$8.50
Double Steel Track	22c per ft.
Hanging Hooks	15c each
Rafter Brackets	7c "
3/4" Floor Hooks	15c "
Wood, Knot passing, pulley Fig. 1120	75c "
Double Harpoon fork Fig. 1314	3.00
Four tine Grapple fork Fig. 1351	10.00
Six " " " " 1438	12.00

5% discount for cash on complete outfit



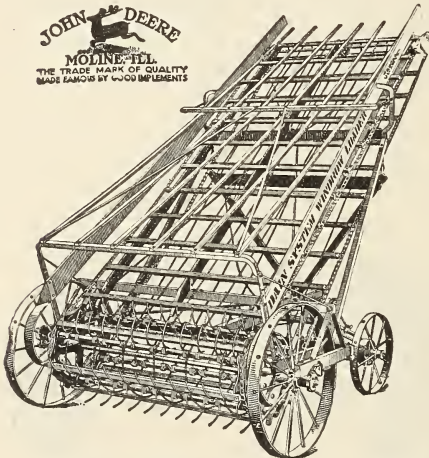
The advantage of a hay carrier as a means of storing away Hay or Grain are so well known that it is not necessary to go into details. They save the time and expense of from one to three men at harvest time—a large item.

WORCESTER**Six Fork Tedder**

Price - \$56.00 5% discount for cash

In the construction of this machine all the improved features of the Bullard and Mudgett Tedders are used with further valuable improvements of the makers. Their aim has been to make a tedder that would be more durable and hence cost the user less for repairs than any machine now on the market. We believe this has been accomplished.

JOHN DEERE
MOLINE, ILL.
THE TRADE MARK OF QUALITY
MADE EMBROID BY WOOD BRASSERS

**A Dain Side Delivery Rake**

Will prove a profitable investment for any hay grower, for in addition to increasing the feeding value of the product it saves time by hastening the curing process.

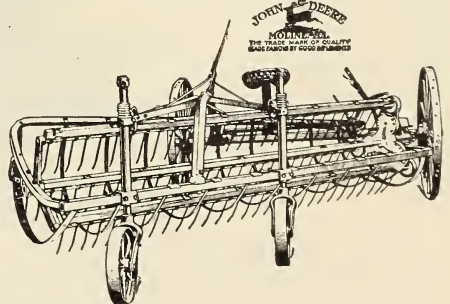
Dain System 4 Wheel Rake, \$105.00
5% discount for cash.

Dain System Six Foot Hay Loader With Fore Carriage

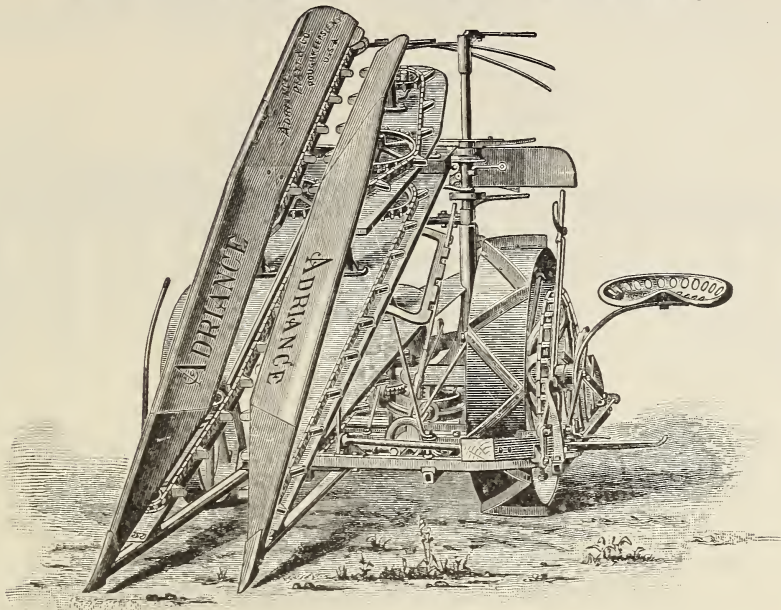
Price \$105.00 5% discount for cash.

Will handle anything from the lightest swath to the heaviest windrow. Strong and serviceable. The modern way of handling hay is the side delivery rake and hay loader.

JOHN DEERE
MOLINE, ILL.
THE TRADE MARK OF QUALITY
MADE EMBROID BY WOOD BRASSERS



THE MOLINE CORN BINDER



This machine cuts the standing corn, binds it and delivers it in bundles ready for shocking. In the construction of the Adriance Binder no expense is spared to make it the lightest draft and the most durable of any of its class on the market.

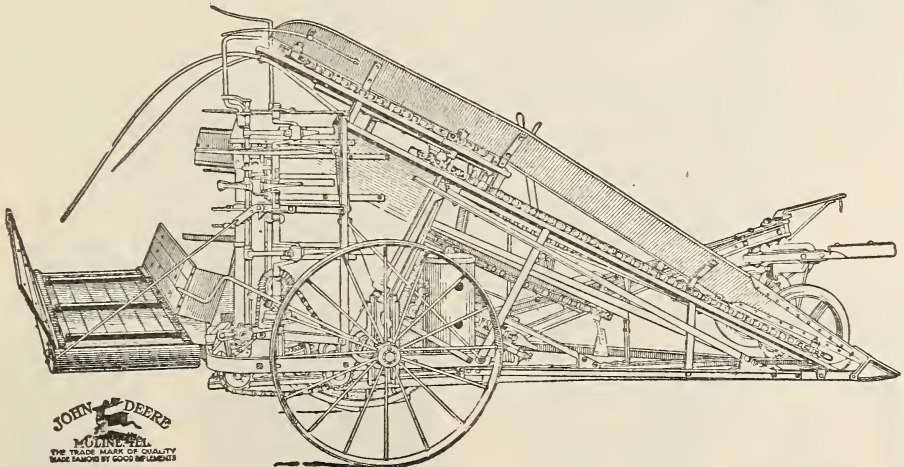
Price, plain with 3 H Hitch, \$210.00

" with Tongue Truck, 230.00

5% discount for cash.

JOHN DEERE CORN BINDER

The Improved Binder with power carrier and quick turn tongue truck



JOHN DEERE

MOLINE, ILL.
THE TRADE MARK OF QUALITY
 MADE FAMOUS BY GOOD REFUSINGS

The John Deere Corn Binder is built to the standard of quality that has characterized John Deere Implements for more than Eighty Years.

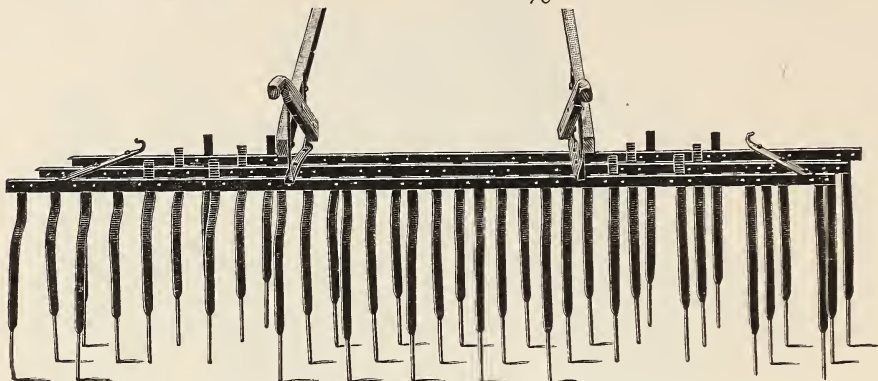
Price Pole Attached 3 Horse Hitch Less Power Bundle Carrier	-	\$210.00
" " " " " with " " "	-	230.00
" with Fore Truck " " with " " "	-	245.00
" " " " less " " "	-	230.00

5% Discount for Cash

THE ECLIPSE WEEDER

Price \$13.00

5% discount for cash



The teeth are round and each one can be raised to different heights. Does most thorough and perfect work. May be adjusted for either hard scratching or for light work. Suitable for all soil conditions.

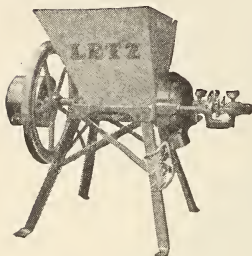
HALLOCK WEEDER

Price \$16.00

5% discount for cash

A standard weeder having curved teeth.

LETZ FEED MILLS



No. 6 for 1 to 3 H.P. grinding capacity 4 to 15 bu. per hour Net \$25.00

No. 9 for 2½ to 7 H.P. grinding capacity 12 to 30 bu. per hour Net \$38.00

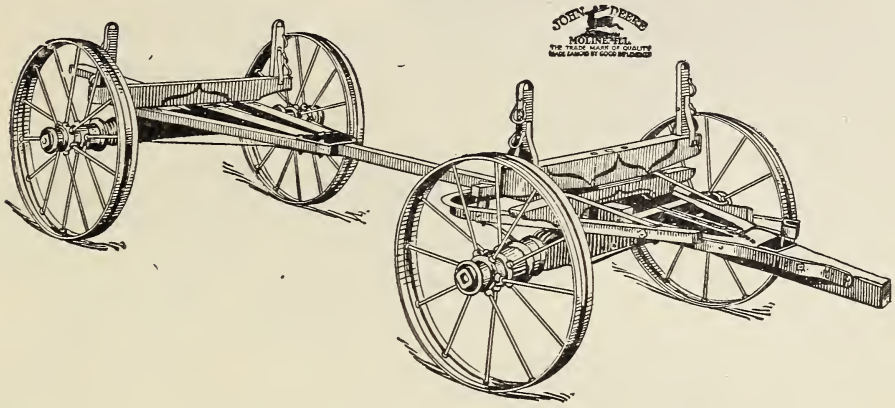
No. 11 for 6 to 12 H.P. grinding capacity 20 to 40 bu. per hour Net \$42.00

Here is a grinder that meets the most exacting requirements. A Mill that is being received with enthusiasm by feeders everywhere. Grinds ear corn, small grains, cuts alfalfa or anything grindable.



Prices on Application

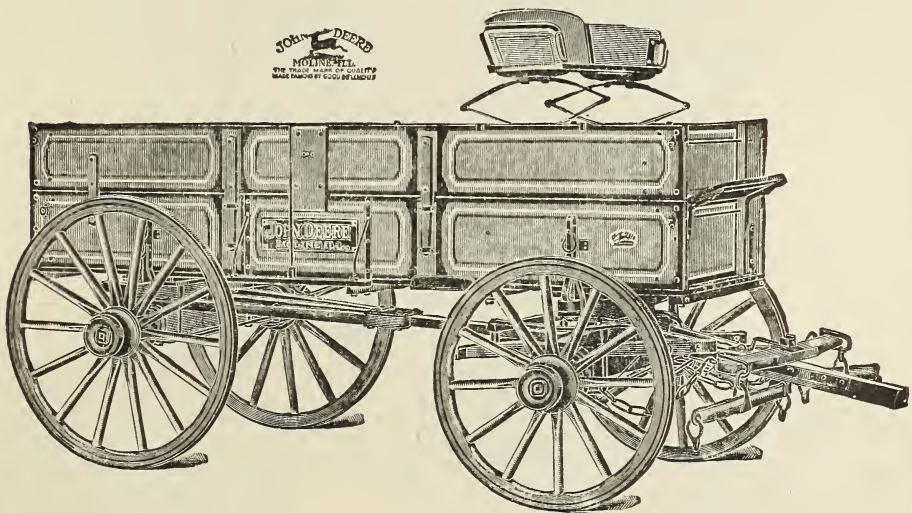
JOHN DEERE FARM TRUCKS



Material selected, good quality hard wood. All parts securely braced, bolted construction can be furnished with either shafts or pole, wood or steel wheels.

Prices on Application

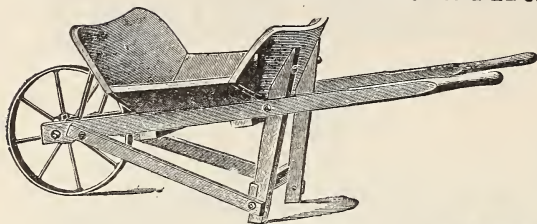
Triumph and Reliance Farm Wagons



Can be furnished with or without body.

Prices on Application

CANAL BARROWS

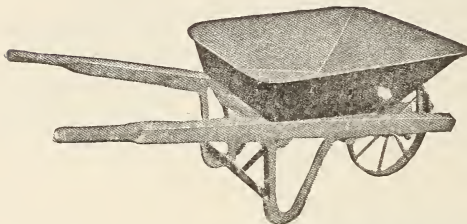
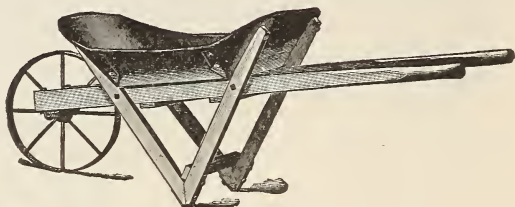


Full Bolted with Wood Tray,
Wood or Steel Wheel

Price \$5.00

Full Bolted with Steel Tray,
Wood or Steel Wheel

Price \$5.75



Mortar Barrow

Price \$8.00

GARDEN BARROWS

Lansing No. 4 Large \$8.00
Lansing No. 3 Medium 7.50

Buchs No. 2 Large 8.50
Buchs No. 3 Medium 8.00



STEEL SCRAPERS

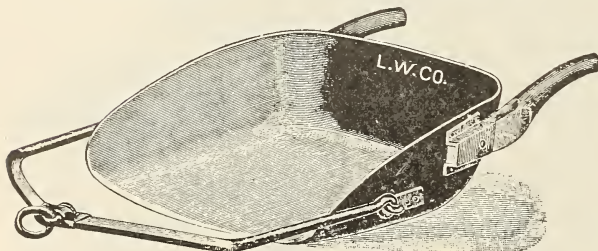
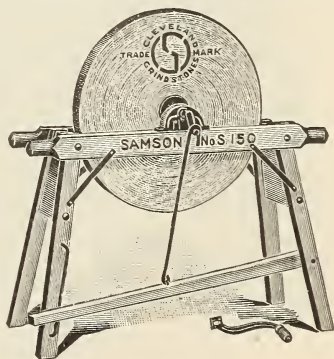


Fig. 603.

No. 3 Special, 3 cu. ft.	\$10.50
No. 2 Special, 5 cu. ft.	11.00
No. 1 Special, 7 cu. ft.	11.50

GRINDSTONES



No. 1 Sampson Wood	
Frame . . .	Price \$10.50
Bicycle Frame . . .	11.00

We sell Dr. Hess Poultry and Stock Remedies



Dr. Hess Poultry Pan-a-ce-a

makes poultry healthy; makes hens lay; not a stimulant, but a tonic, that tones up the dormant egg organs, brings back the scratch and cackle, and compels each hen to put her share of eggs in the market basket.



It also contains internal antiseptics that counteract disease; insures a healthy, singing poultry flock. Cost but a trifle—a penny's worth enough for 30 hens per day. 1½ lbs. 25cts., 5 lbs. 75 cts., 12 lbs. \$1.50, 25-lb. pail \$3.00.

Sold and Guaranteed by Us.

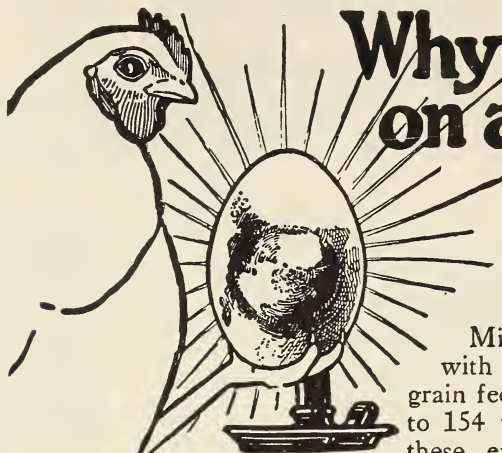
FARMER'S CALDRON FURNACE

A necessity on every farm, for heating water and cooking Stock feed



Sizes 15 to 60 gallon

These Furnaces may be had fitted to burn either Coal or Wood. The Kettle may be bought separately and set in brick work if desired. Prices on application.



Why hens go on a strike!

When hens do not receive both the *white* and *yolk*-forming elements in their feed, they *cannot* lay.

Missouri Experiment Station tests with 100 lbs. of an average mixed grain feed produced about 224 yolks to 154 whites. Based on data from these experiments, Purina formulas make (above bodily maintenance), as follows:

Purina Hen Chow	247.49 yolks	142.11 whites
Purina Chicken Chowder	182.05 yolks	282.55 whites
Combined Ration	429.54 yolks	424.66 whites

These Purina Chows not only make a practically *equal* number of whites and yolks but make *more* of both than ordinary feeds.

Note that Purina Chicken Chowder contains the necessary white-forming elements to balance up the yolk-making grain ration. That's why it makes hens lay so heavily. Purina Chicken Chowder supplies plenty of white for all the yolks in the hen's body, thus insuring a maximum egg yield. That's why we can absolutely guarantee

**more eggs or
money back**

on Purina Poultry Chows if fed as directed. You take no risk.



CARE OF CHICKS

A good start is the most important point in successfully raising baby chicks. Without the proper start little chicks can never develop into high producing pullets or vigorous cockerels. Every year millions of little chicks die during the first four weeks for lack of proper attention and care. Unless the tiny little ball of fluff is healthy and vigorous, it falls an easy victim to one of the many chick diseases.

One cent will pay the difference between feeding a little chick for the first six weeks on the cheapest and the best. And yet it is estimated that between 50 and 60 percent of the little chicks fed the cheap way are never raised to a profitable maturity. Thousands of poultry raisers all over the country who start their chicks right by feeding them Purina Chicken Chowder and Purina Baby Chick Chow are raising from 90 to 95 percent of their chicks.

We also have in stock a special feed for pigeons called Pigeon Chow



Has Put The Proof Right In The Pail

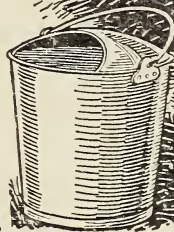
You don't have to try **Purina Cow Chow**. It has been tried and proven over and over.

In the big milk producing sections of the east, in the grain country of the middle west, and in the rapidly developing dairy communities of the south, **Cow Chow** is everywhere in favor.

More Milk From Cow Chow
Is What They All Say

We will get you milk record sheets to show what **Cow Chow** will do for you.

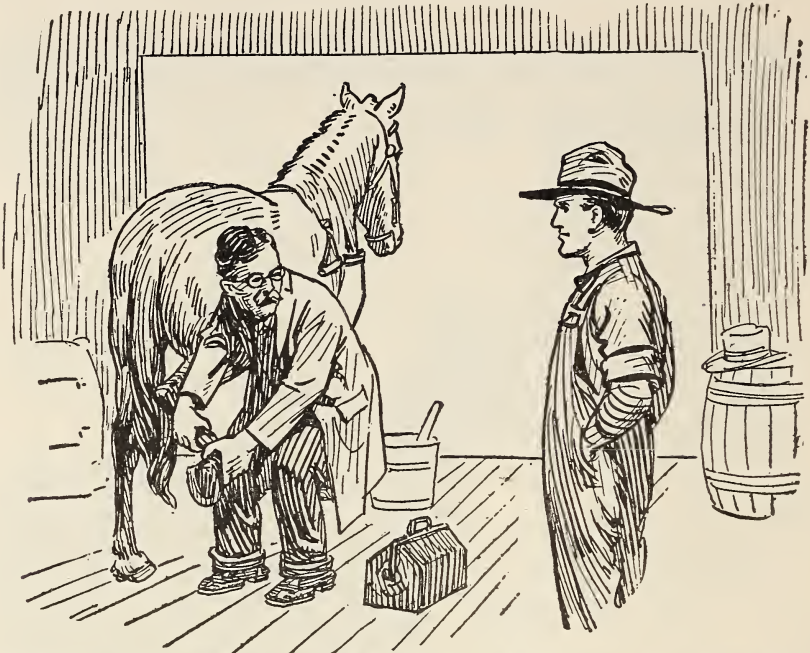
Feed Your Cows From CHECKERBOARD BAGS



Send for our Free Cow Book

PURINA CALF CHOW

For Calves, orphan Lambs, Colts or Pigs. Not necessary to cook or boil. A gallon of milk contains 1 pound of dry matter and seven pounds of water. A pound of calf chow and seven pounds (seven pints) of warm water will make a gallon of good wholesome feed for any young animal on the farm. Think of the difference in cost.



Horses Fed Right Live Longer

The Veterinarian's Recommendation

Horse Owner—Doctor, there's something the matter with this horse, he's no good for work anymore.

Veterinary—How long have you worked him?

Horse Owner—About six years.

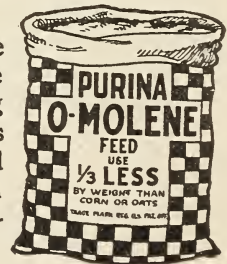
Veterinary—He's all shot to pieces.

Horse Owner—I guess it was the hard roads.

Veterinary—No, you're wrong. The trouble with this horse is he hasn't been fed right. He's been fed a monotonous diet of oats and corn with hay, which fails to supply a work animal with a sufficient variety of diet to keep him in good shape. If you feed this horse right from now on you'll get a lot more service out of him.

City horses, because they are fed a monotonous diet and never get any green pasture, are generally out of service at 7 or 8 years of age. Horses that are fed right often live to 30 years of age.

I recommend Purina O-Molene because the variety of foodstuff in this well known horse feed is put there to keep them in good working condition. It is a complete ration. Horses thrive on it. They produce more work and live longer on O-Molene. Put your horse on O-Molene feed and watch the excellent results in only a few weeks.



O-Molene is cheaper than oats or corn as you feed one-third less by weight. Send for our free horse book.



1



2



3



4

Views of Tobacco Fields showing fine crops grown on
Olds & Whipple, Inc., fertilizers, season 1922.

Photos taken August 15th.

If you recognize any of the photos on the reverse, drop us a
line and tell us who they are.

Here Is The Point!

☐ Paint cost depends not upon what you pay per gallon for the paint, but upon how much service you get out of every gallon of paint you buy.

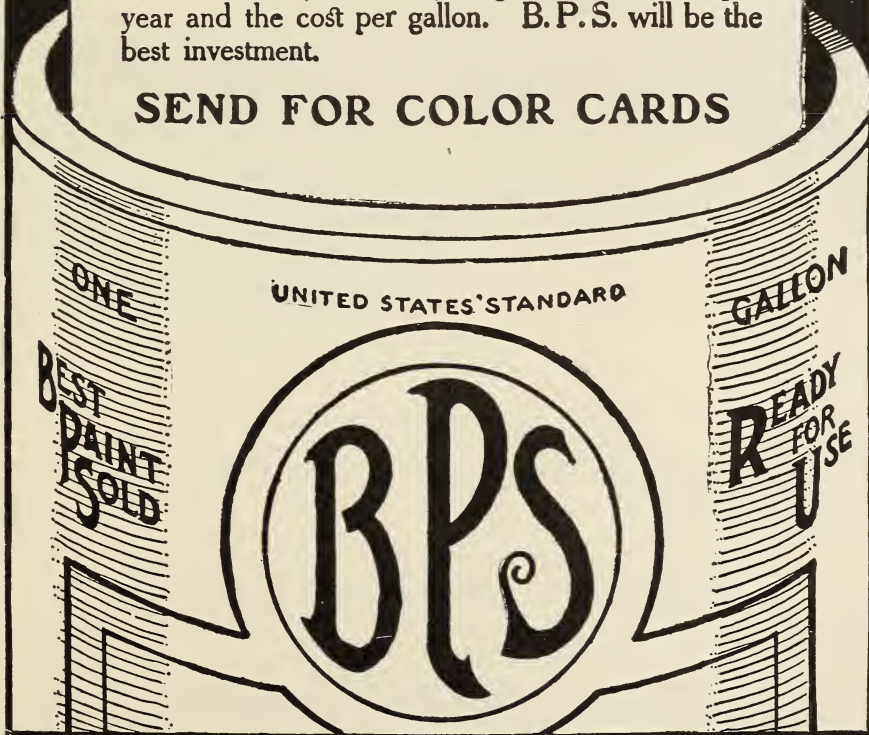
☐ Because there is quality in B. P. S. Paint, it gives service and satisfaction.

B. P. S. Paint covers from 350 to 400 sq. feet, two coats; a cheap paint will cover not to exceed 250 sq. feet.

☐ B. P. S. wears for years and leaves a surface fit to repaint, and the colors are permanent as it is possible to make them.

☐ Think it over seriously; figure out the cost per year and the cost per gallon. B. P. S. will be the best investment.

SEND FOR COLOR CARDS



We also sell O & W. guaranteed house paints, a pure linseed oil product in 24 shades. We have in stock at all times a complete line of Varnishes, Stains, Lead, Turpentine, Oil, Barn, Wagon and Floor Paints.

Oval Three-Tine Ferrule Hay Forks

4 ft. Straight handle	.	.	.	.	.	.	Price, \$1.10 each
4 ft. Bent	"	.	.	.	.	.	" 1.15 "
4½ ft. "	"	.	.	.	.	.	" 1.20 "
5 ft. "	"	14 in. tine	.	.	.	.	" 1.35 "
5½ ft. "	"	"	.	.	.	.	" 1.45 "
6 ft. "	"	" strap ferrule	.	.	.	.	" 1.65 "

MANURE FORKS

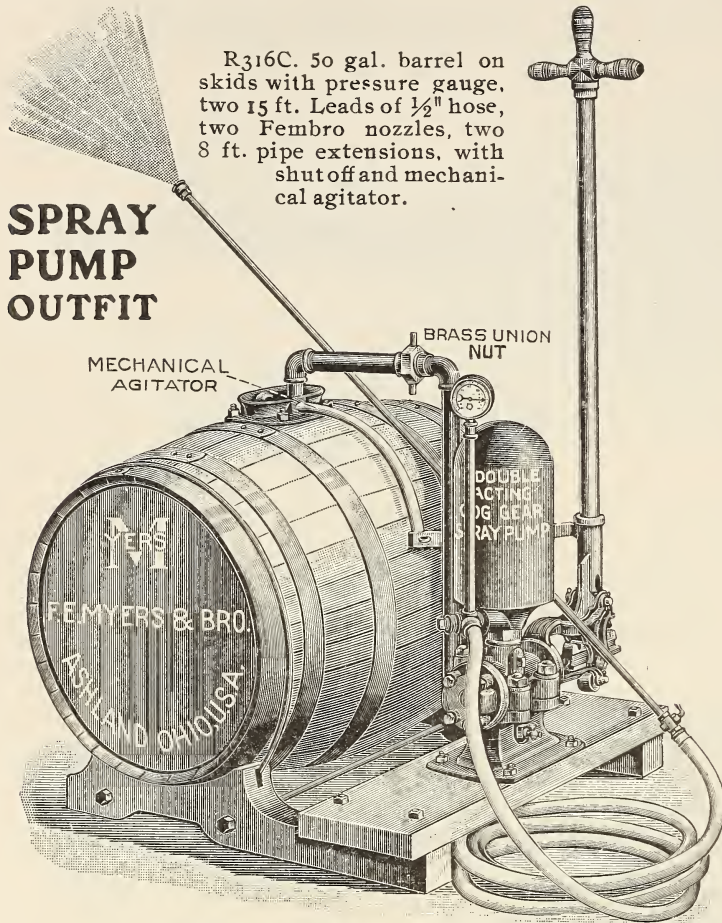
	Price Common ferrule Mall. D. Handle	Price Common ferrule Wood D. Handle	Price Strap ferrule Mall. D. Handle	Price Strap ferrule Wood D. Handle
4 Tine	\$1.25	\$1.50	\$1.40	\$1.65
5 "	1.50	1.75	1.65	1.90
6 "	1.80	2.05	1.95	2.20
Large 4 Tine Fork for handling light manure				\$2.25
5 Tine Long Handle Strap ferrule				1.60
5 " " " Plain "				1.50

SPADING FORKS

L. H. 4 Tine Strap ferrule	.	.	.	.	.	Price, \$1.50 each
Mall. D4 " " "	.	.	.	.	.	" 1.60 "
Wood D. 4 Tine " "	.	.	.	.	.	" 1.90 "

MANURE AND POTATO HOOKS

5 Tine Bent Head, Solid Steel Potato Hook	.	.	.	.	.	Price, \$1.10 each
6 " " " " " " "	.	.	.	.	.	" 1.20 "
4 " Manure Hook	.	.	.	.	.	" 1.10 "
" " " " " " "	.	.	.	.	.	" 1.20 "



SPRAY PUMP OUTFIT

R316C. 50 gal. barrel on skids with pressure gauge, two 15 ft. Leads of $\frac{1}{2}$ " hose, two Fembro nozzles, two 8 ft. pipe extensions, with shut off and mechanical agitator.

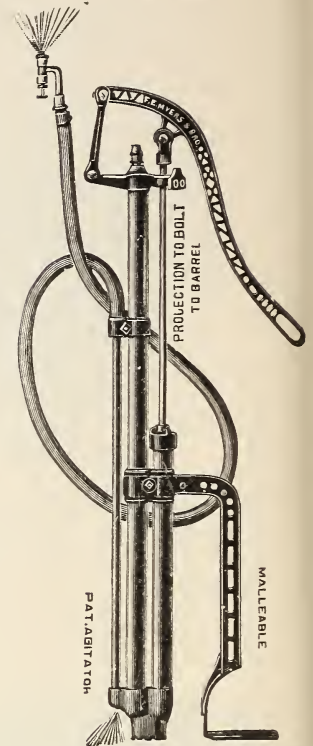


Fig. 1726 R324. Represents the Myers Lever Bucket Spray Pump made of brass and fitted with brass ball valves and patent agitators. The cylinder is $1\frac{1}{2}$ inches in diameter with solid plunger.

The air chamber is 50 per cent larger than the ordinary bucket pump, has malleable iron foot rest and malleable lever.

This pump can be operated with one-half the power required by the ordinary spray pump owing to the advantage of the lever handle.

No. 327 $\frac{1}{2}$ Little Giant Bucket Spray Pump.

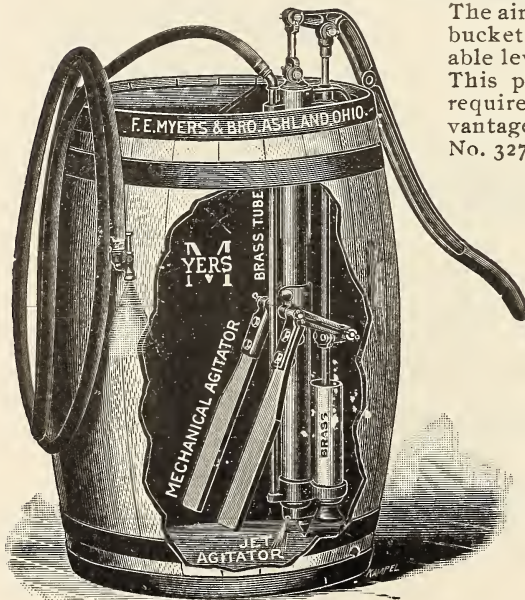
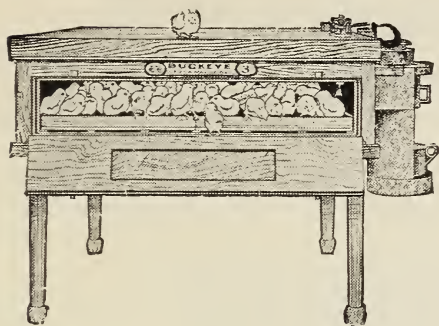


Fig. 1456. Represents the Myers Improved Barrel Spray Pump. This is a thoroughly serviceable pump well made and simple in construction, for open head barrel.

It has one lead of 15 feet of $\frac{1}{2}$ in. 5 ply discharge hose graduating vermored nozzle and both jet and mechanical agitators.

R318B Myer's Cogged Gear Barrel Spray Pump for closed head barrel.

Send for Special Catalogue. Prices on application.



Buckeye Incubator

Guarantee

Every "Standard" or "Style E" Buckeye incubator is guaranteed to hatch more chicks and stronger chicks than any incubator of any other brand.

It is further guaranteed: To require no artificial moisture and to require no attention to the regulator from the time a hatch is started until it is finished.

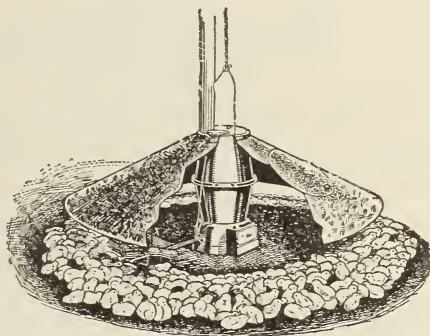
		Prices
No. 1 Standard	110 Eggs	\$37.50
No. 2 Standard	175 Eggs	44.50
No. 3 Standard	250 Eggs	57.75
No. 4 Standard	350 Eggs	68.00

		Prices
No. 14	Style E 65 Eggs	\$16.50
No. 16	Style E 110 Eggs	27.50
No. 17	Style E 210 Eggs	36.75

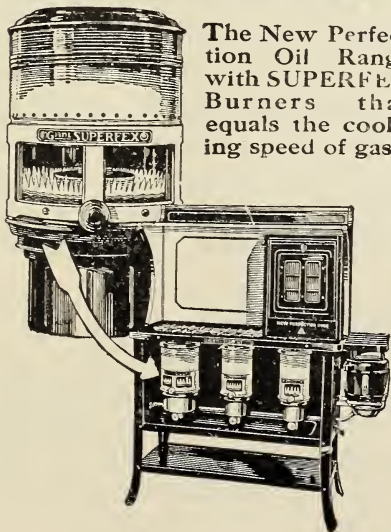
Royal Colony Brooder

Coal Burning

No. 18 Capacity up to 500 chicks.	\$21.50
No. 19 Capacity up to 1000 chicks.	\$26.50



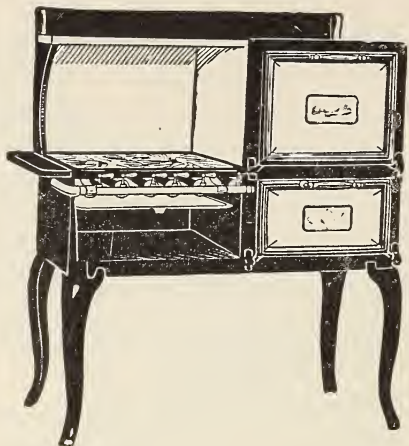
It's here



The New Perfection Oil Range with SUPERFEX Burners that equals the cooking speed of gas.

Oil Stoves

This is the highest type of oil stove known to modern science. Made in three sizes with or without ovens. We also carry in stock Perfection, Puritan and Florence oil stoves and heaters. Prices on application.



A Good Gas Range is a boon to the housekeeper. Cuts down the drudgery of cooking in the summer one-half. We carry several different sizes and makes.

Prices and catalogue on application.

Sheet Metal Department

We specialize in all kinds of tin and sheet iron work to order. Estimates given on all kinds of tin roofing, gutter and conductor work.

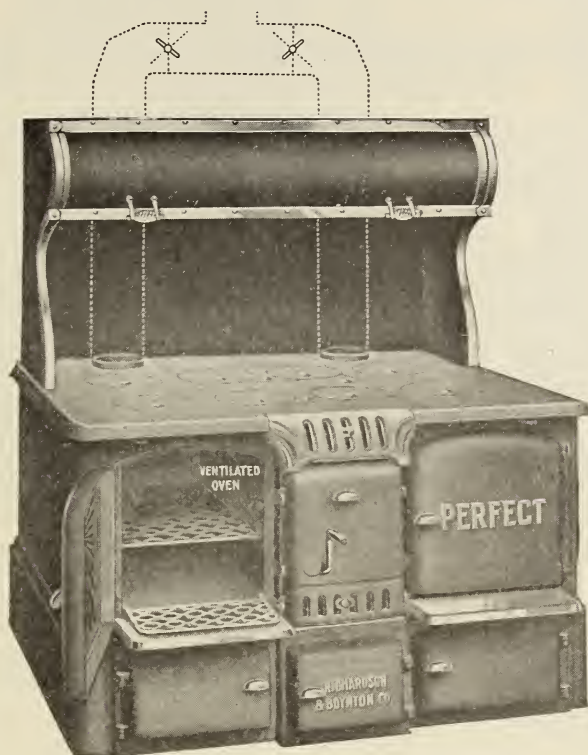
We make tobacco seed bed sterilizing pans in any size desired. These pans are made of extra heavy galvanized iron, reinforced with angle iron on top and sides and fitted with pipe connections to connect with boiler. These pans are placed over the seed beds and live steam turned into them which will destroy all germ life. They have proven very beneficial and insure growth of good sturdy plants. Prices on application.

We make ventilators of galvanized iron for roofs of tobacco sheds in any size required. Strong and well made.

O. & W. Asphalt and Slate Surface Roofing

A Ready-To-Lay Roofing for Tobacco Sheds, Barns and Garages. Made of long wool felt saturated with asphalt. Slate or plain surface. Fire resisting and water-proof. 108 square feet to the roll. Easy to lay and cheaper than shingles. Nails and cement with each roll.

Richardson "Perfect" Double-Oven Ranges



THE PERFECT DOUBLE OVEN COOKING RANGES are made of the best quality iron and are heavy, durable and easy to keep in order. Two wrought iron ventilated removable ovens insure the finest results possible for roasting or baking. Large fire boxes fitted with triangular grates make it easy to shake and clean the bottom of the fire with practically no effort. Powerful water backs insure plenty of hot water. Made in three sizes.

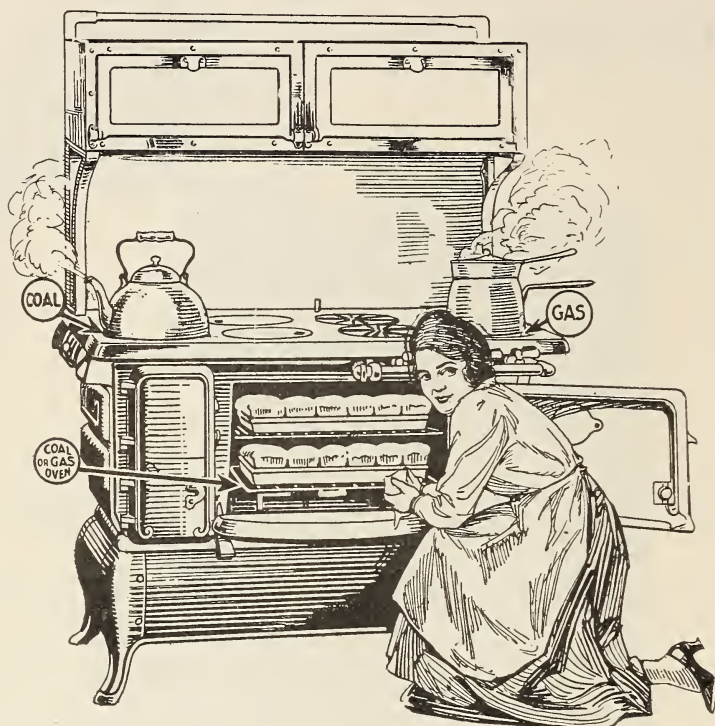
	No. 111E	No. 112E	No. 114E
Size of cooking top	49½ x 28	53 x 30	60 x 30
Height of cooking top.	28½	28½	28½
Total height.	55½	55½	55½
Size of ovens.	20x12x14	20x13x14	20x16x14
Fire box dimensions.	15½x8½	15½x9½	15x10

Suitable for hotels, restaurants and boarding houses.

Prices and Catalog on application.

FAMOUS SUMMIT

Coal and Gas Ranges for JUNE BRIDES



GUARANTEE.—The famous Summit is unqualifiedly guaranteed by the makers, backed by us. This guarantee is without a string and simply means "Your Money Back" if you want it.

FOR COAL

The Famous Summit is the best working coal range you ever saw. It will bake better, heat water hotter, heat the kitchen and do it with less coal than any other range. You can keep a splendid fire over night and maintain a perfect baking oven all day long, and do it day after day. The fire box is large and deep, brick-lined with durable iron ends and easy working, long-wearing triangular grates. The flues are the improved "sheet flue" type that heat the full five sides of the oven—acknowledged by all stove makers as the very best flue construction yet developed.

FOR GAS

As a Gas Range the Famous Summit is an improvement over ANY gas stove. The one problem faced by all gas stove makers has been to keep the ovens from baking too hard on the bottom. This is because gas ovens are heated at the bottom and vented at the top. The Summit is different. The heat is supplied at one side of the gas bottom and vented at the other side—both heat and vent being at the bottom. There is a perfect and even distribution of heat. The baking will be alike, top and bottom; a result not obtained to so perfect a degree in any other gas oven.

Enameled all colors—Blue Brown Gray White



FOR 45 YEARS
WE HAVE SOLD
THE
**RICHMOND
RANGE**

The Range
that is
guaranteed
to bake

Points in General about RICHMOND RANGES

The Richmond damper is one of the most simply constructed dampers it is possible to make. It is raised to kindle, and lowered to bake.

All Richmond Ranges can be equipped with either a plain flat grate, triangular grate or a dockash grate; also special wood features; also a grate especially designed for burning pea coal. The Richmond line is the only line that can be furnished with a special pea coal grate. Pea coal is generally cheaper than other kinds of coal. This grate is a two bar grate easily operated.

The grate bars in all Richmond Ranges can be removed through the fire door without taking out the grate frame or the brick. Grate bars front and back are the same, that is the grate bars are reversible.

The locked oven rack is found in all Richmond Range ovens. This makes it unnecessary to reach into the hot oven to turn the baking. Simply draw out the oven rack and the baking with it. No matter how far the rack is drawn out it remains locked. Drawing the baking out on the rack prevents burning the arms or dropping the oven rack on the floor and perhaps the baking with it.

Reservoirs can be furnished for all ranges.

Glass oven doors can be furnished for all range ovens.

Indicators are furnished for the oven doors of all Richmond Ranges.

Water fronts and brass coils can be furnished for all Richmond Ranges.

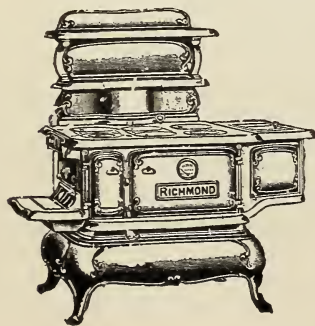
Richmond Ranges burn any kind of fuel—hard or soft coal, coke or wood.

Nickel simmering covers are furnished for all ranges.

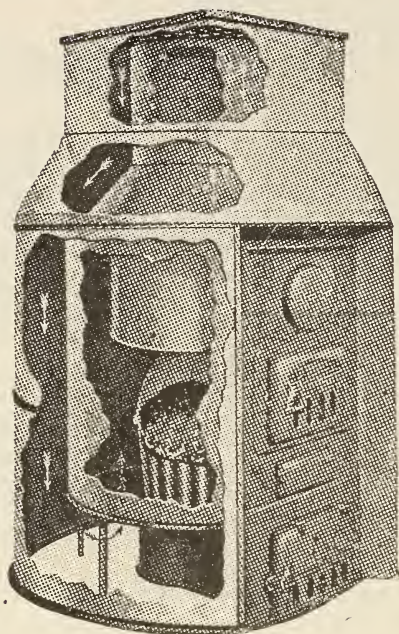
Richmond Ranges are backed by the guarantee of three generations of stove manufacturers whose sole aim has been to produce goods of the highest quality.

A booklet "How to Use Your Range" goes out with every range. This gives instructions not only how to operate the range but also how to guard against range troubles.

Beautiful in design and finish. Many sizes. Send for booklet and Prices.



Why Be Cold When It Is So Easy To Be Warm?



Have you been shivering through the cold winter weather with a stove that heats only one room, or with an old-fashioned, improperly installed heating apparatus.

A RICHARDSON PIPELESS furnace will solve your heating problem.

This system not only sends the warm air throughout the house, but draws the cooler air back to the register and reheats it thereby producing perfect circulation.

The RICHARDSON PIPELESS means just what we say, "A heating furnace without a network of pipes in the cellar. One hole cut in the floor for the register and your heater is ready for business."

The cellar remains cool for storing vegetables and other produce, all the heat going up into the house. These heaters are adaptable for old houses as well as new and the ease and quickness with which they are installed does not annoy or inconvenience the house owner. Made in 5 different sizes for houses from 4 to 12 rooms. Where houses are not adapted for pipeless furnaces, we can install one with a pipe to every room.

Prices and catalog upon application.

USEFUL CHEMICAL MEMORANDA

(Partly from the first annual report of the Connecticut Agricultural Experiment Station, 1876.)

Animal and vegetable substances, such as flesh, bone, wood, grain, manure, and the like, contain three classes of materials: Water, Organic Matters and Mineral Matter or Ash. If we heat a piece of wood, a whisp of hay, a bone, or a portion of manure or soil, in an oven, the water will be dried out. If we put the dried material in the fire, the *Organic Matter*, which consists mostly of the chemical elements, carbon, oxygen, hydrogen, and nitrogen will be burned away, and there will remain the *Mineral Matter or Ash*. The ash of these different materials generally contains more or less potash, soda, lime, magnesia, iron, alumina, silica, phosphoric acid, sulphuric acid, chlorine, or other ingredients. The proportions of these vary widely in different substances, from the large quantities to the merest traces.

Moisture.—All fertilizers contain more or less water, which, of course has no commercial value, and serves to make them heavier and relatively poorer in valuable ingredients. In the analysis that which is removed by heating to 212° Fahrenheit (or in some cases to a somewhat higher temperature), is designated as moisture. By subjecting the dried material to a higher temperature, the organic and volatile matters are driven off, and the ash remains. By treating this ash with strong acids, all that is of any value is dissolved.

Sand and Insoluble Matters.—The residue, which resists the action of both fire and strong acids, consists of silica and other mineral matters. These possess no fertilizing value, and are classified as sand, etc.

Nitrogen, Ammonia.—In our ordinary fertilizers, much or all of the nitrogen exists in unavailable forms. By more or less rapid alterations, by decay or otherwise which take place in the soil, these are changed to other compounds, which the plant can readily use as food. Of these latter nitric acid, which contains nitrogen combined with oxygen, is one; ammonia which consists of nitrogen and hydrogen and is represented by the chemical formula $N. H.$ is another. 14 parts by weight of nitrogen unite with 3 parts of hydrogen to form 17 parts of ammonia. Accordingly 14 parts of nitrogen are said to be equivalent to 17 of ammonia, or what is the same thing 100 parts of nitrogen are reckoned as equivalent to 121 parts of ammonia. In pure sulphate of ammonia, all the nitrogen is in the form of ammonia. In Peruvian guano, some of the nitrogen exists as ammonia also. In our ordinary fertilizers there is little or no ammonia. The very common practice of reckoning nitrogen as ammonia in fertilizers which do not contain it in this form is incorrect, misleading and therefore wrong, and ought to be abolished. Ammonia combined with sulphuric acid, forms sulphate of ammonia; nitric acid combined with soda, forms nitrate of soda.

Phosphoric Acid: SOLUBLE, REVERTED AND INSOLUBLE.—By phosphoric acid is understood the compound of phosphorous and oxygen, which is represented by the chemical formula, P_2O_5 . This combined with lime, forms phosphate of lime. The phosphate of lime which occurs in bone, and in South Carolina and other fossil and mineral phosphates, contains three parts of lime to one of phosphoric acid. This is often called bone phosphate, and is insoluble in water. When the bone phosphate is treated with sulphuric acid, the latter takes part of the lime to itself, forming sulphate of lime, and leaves the phosphoric acid in the form of a *Superphosphate*. This last is soluble in water, and when used as a fertilizer can be taken up by the plant at once, while the bone phosphate is slowly available as plant food. Phosphoric acid which has been rendered soluble, often enters into other forms of combination with lime, alumina, etc., which, though insoluble in water, are soluble in citrate of ammonia. The terms, reverted, reduced and precipitated, are applied to it when in this form.

The reverted phosphoric acid ranks in solubility, and consequently in value, between the soluble and insoluble. The soluble and reverted are sometimes classed together as *Available* phosphoric acid.

In some analyses the percentage of phosphoric acid is not stated separately, that of "bone phosphate of lime" being given in its stead. Sometimes the expression "soluble bone phosphate of lime" is met with, which is certainly a misnomer. 142 parts by weight of phosphoric acid P_2O_5 unite with about 168 parts of lime CaO to form 310 parts of bone phosphate $Ca_3(PO_4)_2$; 100 parts or pounds of phosphoric acid are said, therefore, to be equivalent to 218 parts of bone phosphate. Special stress is laid on this point, because those not familiar with chemistry are apt to be deceived in comparing analyses, in some of which the term phosphoric acid, and in others the term bone phosphate, is used. It would be more accurate and clear, and in every way better to discard the term bone phosphate of lime in analyses of fertilizers, and speak only of phosphoric acid.

Potash, or potassa, is the compound of the metal potassium with oxygen, which is represented by the chemical formula K_2O or KO . This combined with sulphuric acid forms sulphate of potash. Potassium and chlorine together form chloride of potassium, or "muriate of potash," as it is called by dealers.

100 pounds of pure sulphate of potash contains about 54 pounds of "actual potash." 100 pounds of sulphate of potash are therefore said to be equivalent to 54 pounds of actual potash, and vice versa, 54 pounds of potash, in the sulphates are reckoned as equivalent to 100 pounds of sulphate of potash. In the "muriates" 100 pounds of chloride of potassium are reckoned equivalent to about 63 pounds of potash, and vice versa.

Carbonate of Potash, K_2CO_3 . — This fertilizer chemical is the ingredient which gives to wood ashes and cotton hull ashes their value as tobacco fertilizers, and it is practically free from magnesia. It was formerly prepared by extraction from wood ashes, and formed the "pearl ash" of commerce. It has been used with good effect as a tobacco fertilizer in the Poquonock experiments.

The following figures will be found useful in calculations of the composition of fertilizers.

NITROGEN COMPOUNDS

14.	parts of Nitrogen	are contained in	17.	parts of Ammonia.
100.	"	"	121.43	"
82.35	"	"	100.	"
17.	Ammonia	"	66.	Sulphate of Ammonia.
100.	"	"	388.2	"
25.8	"	"	100.	"
14.	Nitrogen	"	66.	"
100.	"	"	471.4	"
21.2	"	"	100.	"
14.	"	"	54.	Nitric Acid.
100.	"	"	385.7	"
25.9	"	"	100.	"
14.	"	"	85.	Nitrate Soda.
100.	"	"	607.1	"
16.47	"	"	100.	"
54.	Nitric Acid	"	85.	"
100.	"	"	157.4	"
63.5	"	"	100.	"
85.	Nitrate of Soda correspond to	17.	"	Ammonia.
100.	"	"	20.	"
500.	"	"	100.	"

PHOSPHORIC ACID

100.	parts of Phosphoric Acid correspond to	218.3	parts of Bone Phosphate.
45.8	"	100.	"

POTASH (Potassa)

100.	parts of Sulphate of Potash contains	54.08	parts of Potassa.
184.9	"	100.	"
100.	Chloride of Potassium correspond to	63.17	parts of Potassa.
158.3	"	100.	"

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SEED AND PLANT TABLES.

	Quantity per Acre	Weight Per Bu.
Barley	95 to 120 lbs.	48 lbs.
Blue Grass (Canada)	25 to 40 lbs.	14 lbs.
" (Kentucky)	25 to 40 lbs.	14 lbs.
Buckwheat	50 to 60 lbs.	48 lbs.
Clover-Alfalfa (Broadcast)	20 to 30 lbs.	60 lbs.
" (Drills)	15 to 20 lbs.	60 lbs.
" Crimson	10 to 20 lbs.	60 lbs.
" Red	10 to 15 lbs.	60 lbs.
" White	5 to 10 lbs.	60 lbs.
Corn (Hills)	15 to 20 lbs.	56 lbs.
" (drills for fodder)	60 to 75 lbs.	56 lbs.
" (broadcast)	120 to 150 lbs.	56 lbs.
Cow Peas in Drills	60 to 90 lbs.	60 lbs.
Millet (Common)	25 to 40 lbs.	48 lbs.
" (Hungarian)	25 to 40 lbs.	48 lbs.
" (Japanese)	12 to 20 lbs.	32 lbs.
Oats	60 to 90 lbs.	32 lbs.
Orchard Grass	25 to 40 lbs.	14 lbs.
Rape (broadcast)	5 to 6 lbs.	60 lbs.
" (drills)	3 to 4 lbs.	60 lbs.
Red Top (unhulled)	25 to 40 lbs.	14 lbs.
" (re-cleaned)	10 to 15 lbs.	35 lbs.
Rhode Island Bent Grass	25 to 40 lbs.	14 lbs.
Rye Grass (Italian)	40 to 50 lbs.	18 lbs.
Soja Beans (broadcast)	50 to 75 lbs.	60 lbs.
" (in rows)	20 to 30 lbs.	60 lbs.
Sudan Grass	15 to 20 lbs.	
Timothy	15 to 30 lbs.	45 lbs.
Vetch (Spring)	50 to 70 lbs.	60 lbs.
Vetch (Winter)	30 to 60 lbs.	60 lbs.
Wheat	90 to 120 lbs.	60 lbs.
Potatoes,	12 Bu.	60 lbs.
Clover, Timothy, } together, for one acre,		8 pounds 1/4 bushel 1 bushel
Red Top, }		
Peas in drills are sown 1 1/4 to 1 1/2 bushels to the acre.		
Carrots,	usually sown to the acre, 2 1/2 to 3 lbs.	
Beets,	" " " " " " " " " "	4 to 6 lbs.
Parsnips,	" " " " " " " " " "	3 to 6 lbs.
Onions,	" " " " " " " " " "	4 to 6 lbs.
Ruta Bagas,	" " " " " " " " " "	1 lb.
Turnips,	" " " " " " " " " "	1 to 1 1/2 lbs.
Beans,	" " " " " " " " " "	1 1/2 to 2 bu.

Quantity of Corn Required to Plant an Acre, Five Grains in a Hill.

3 ft. x 2	18 qts.	3 ft. x 3	14 qts.
3 1/2 ft. x 3	10 qts.	3 3/4 ft. x 3	8 qts.
3 ft. x 4	7 qts.	4 ft. x 4	6 qts.

Number of Plants per Acre at Given Distances.

1 ft. x 1 ft.	43,560	9 ft. x 9 ft.	537
1 1/2 ft. x 1 1/2 ft.	19,360	12 ft. x 12 ft.	362
2 ft. x 2 ft.	10,890	15 ft. x 15 ft.	163
2 1/2 ft. x 2 1/2 ft.	6,969	18 ft. x 18 ft.	134
3 ft. x 3 ft.	4,840	20 ft. x 20 ft.	100
4 ft. x 4 ft.	2,722	25 ft. x 25 ft.	73
5 ft. x 5 ft.	1,742	30 ft. x 30 ft.	47
6 ft. x 6 ft.	1,210	40 ft. x 40 ft.	20

Quantity of Seed Required for a Given Number of Plants, or Number of Hills, or Length of Drill.

Asparagus,	1 oz. to 65 ft. of drill	Musk Melon,	1 oz. to 60 hills
Beets,	1 oz. to 50 ft. of drill	Okra,	1 oz. to 40 ft. of drill
Beans, Dwarf,	1 qt. to 100 ft. of drill	Onion,	1 oz. to 100 ft. of drill
Beans, Pole,	1 pt. to 150 hills	Onion Sets, small,	1 qt. to 4 ft. of drill
Carrot,	1 oz. to 150 ft. of drill	Parsley,	1 oz. to 150 ft. of drill
Cabbage,	1 oz. to 3,000 plants	Parsnip,	1 oz. to 200 ft. of drill
Cauliflower,	1 oz. to 3,000 plants	Peas,	1 qt. to 100 ft. of drill
Celery,	1 oz. to 4,000 plants	Pumpkin,	1 oz. to 40 hills
Cucumbers,	1 oz. to 50 hills	Pepper,	1 oz. to 2,000 plants
Corn,	1 qt. to 400 hills	Radish,	1 oz. to 100 ft. of drill
Dandelion,	1 oz. to 200 ft. of drill	Salsify,	1 oz. to 70 ft. of drill
Endive,	1 oz. to 150 ft. of drill	Spinach,	1 oz. to 100 ft. of drill
Egg Plant,	1 oz. to 2,000 plants	Squash, early,	1 oz. to 50 hills
Lettuce,	1 oz. to 4,000 plants	Squash, marrow,	1 oz. to 16 hills
Leek,	1 oz. to 100 ft. of drill	Tomato,	1 oz. to 3,000 plants
Watermelon,	1 oz. to 80 hills	Turnip,	1 oz. to 150 ft. of drill

One Gallon, by the U. S. Standard Unit of Liquid Measure contains 231 cubic inches.

The U. S. Bushel contains 2,150.42 cubic inches.

An Acre contains 43,560 square feet.





OLDS & WHIPPLE

INCORPORATED

Seeds Fertilizers and Agricultural Implements

HARTFORD, CONN.

